1949

DIAMOND JUBILEE NUMBER

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STATE BOARD OF HEALTH

ANNUAL REPORT

1949

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Annual Report

STATE BOARD OF HEALTH

State of Florida

1949

The following statistical reports will be published separately:
SUPPLEMENTAL I — FLORIDA VITAL STATISTICS, 1949
SUPPLEMENTAL II — FLORIDA MORBIDITY STATISTICS, 1949

WILSON T. SOWDER, M.D.
STATE HEALTH OFFICER
JACKSONVILLE, FLORIDA

The Honorable HERBERT L. BRYANS, M.D., President
Florida State Board of Health
Pensacola, Florida

Dear Dr. Bryans:

I herewith submit the fiftieth annual report of the Florida State Board of Health for the year ending December 31, 1949.

Sincerely yours,

WILSON T. SOWDER, M.D.
State Health Officer

September 1, 1950
Jacksonville, Florida

His Excellency, FULLER WARREN
Governor of Florida
Tallahassee, Florida

SIR:

I beg to hand you herewith a report of the Florida State Board of Health for the period January 1, 1949 to December 31, 1949, inclusive.

Respectfully submitted,

HERBERT L. BRYANS, M.D.
President

September 1, 1950
Pensacola, Florida

Members of the

FLORIDA STATE BOARD OF HEALTH

HERBERT L. BRYANS, M. D., President
Pensacola

EDWARD L. FLYNN, D. D. S.
Tampa

ROBERT B. McIVER, M. D.
Jacksonville

T. M. CUMBIE, Ph. G.
Quincy

MARK F. BOYD, M. D.
Tallahassee

OFFICIAL STAFF FLORIDA STATE BOARD OF HEALTH

State Health Officer	Wilson T. Sowder, M. D., M. P. H.
Assistant to State Health Officer	Knox E. Miller, M. D.

DIRECTORS

Bureau of Local Health Service	George A. Dame, M. D.
Division of Public Health Nursing	Ruth E. Mettinger, R. N.
Bureau of Dental Health	Floyd H. DeCamp, D. D. S.
Bureau of Preventable Diseases	Roger F. Sondag, M. D.
Division of Venereal Disease Control	
Division of Industrial Hygiene	John M. McDonald, M. D.
Division of Cancer Control	
Florida Rapid Treatment Center	Frank M. Faget, M. D.
Bureau of Tuberculosis Control	Clarence M. Sharp, M. D.
Bureau of Laboratories	Albert V. Hardy, M. D., Dr. P. H.
Miami Regional Laboratory	Nathan J. Schneider
Tampa Regional Laboratory	H. D. Venters
Tallahassee Regional Laboratory	Robert A. Graves
Pensacola Regional Laboratory	Addie V. Hamilton
Orlando Regional Laboratory	Max T. Tramer
Bureau of Maternal and Child Health	Frances E. M. Read, M. D.
Division of Mental Health	
Bureau of Sanitary Engineering	David B. Lee, M. S., Eng.
Division of Entomology	John A. Mulrennan
Bureau of Vital Statistics	Everett H. Williams, Jr.
Bureau of Finance and Accounts	Fred B. Ragland
Personnel Supervisor	Paul T. Baker
Purchasing Agent	G. Wilson Baltzell
Bureau of Narcotics	Marshall H. Doss
Division of Nutrition Investigations and Services	Walter Wilkins, M. D., Ph. D.
Division of Health Information	Elizabeth Reed, R. N.
Field Technical Staff	L. L. Parks, M. D., M. P. H.
Division of Diabetes Control	Malcolm J. Ford, Sr. Surgeon, U. S. P. H. S.

COUNTY HEALTH OFFICERS

(As of December 31, 1949)

Alachua	Frank M. Hall, M. D., M. P. H.
Baker - Nassau	John W. McClane, M. D.
Bay	Franklin H. Reeder, M. D., M. P. H.
Bradford - Clay - Union	A. Y. Covington, M. D., M. P. H.
Brevard - Osceola	James H. Wells, M. D.
Broward	Paul W. Hughes, M. D., M. P. H.
Calhoun - Gadsden - Liberty	Edward C. Love, Jr., M. D.
Charlotte - DeSoto - Hardee	John C. McGuire, M. D.
Citrus - Pasco - Sumter	R. N. Nelson, M. D.
Columbia - Hamilton - Gilchrist	Joseph C. Weeks, M. D.
Dade	T. E. Cato, M. D., M. P. H.
Dixie - Suwannee - Lafayette	E. H. John, M. D.
Duval	Thomas E. Morgan, M. D., M. P. H.
Escambia - Santa Rosa	John C. McSween, M. D.
Flagler - Putnam	Joseph L. Brizard, M. D.
Franklin - Gulf - Wakulla	Terry Bird, M. D., M. P. H.
Glades - Highlands - Hendry	G. L. Beaumont, M. D.
Hillsborough	Frank V. Chappell, M. D., M. P. H.
Holmes - Okaloosa - Walton	Walter T. Colbert, M. D.
Indian River - Martin - Okeechobee St. Lucie	J. Ross Hague, M. D.
Jackson - Washington	Robert G. Head, M. D.
Jefferson	G. A. Dickinson, M. D.
Lake	James B. Hall, M. D., M. P. H.
Leon	Joseph M. Bistowish, M. D., M. P. H.
Levy	Laurier E. Hackett, M. D.
Madison - Taylor	James L. Wardlaw, M. D.
Manatee - Sarasota	William L. Wright, M. D.
Marion	Luther A. Brendle, M. D.
Monroe	William J. Peeples, M. D.
Orange	Leland H. Dame, M. D.
Palm Beach	Clarence R. Rogero, Jr., M. D., (Acting)
Pinellas	T. Paul Haney M. D., M. P. H., Dr. P. H.
Polk	Edwin G. Riley, M. D. Ph. D.
Seminole	Frank L. Quillman, M. D.
Volusia	R. D. Higgins, M. D., M. P. H.

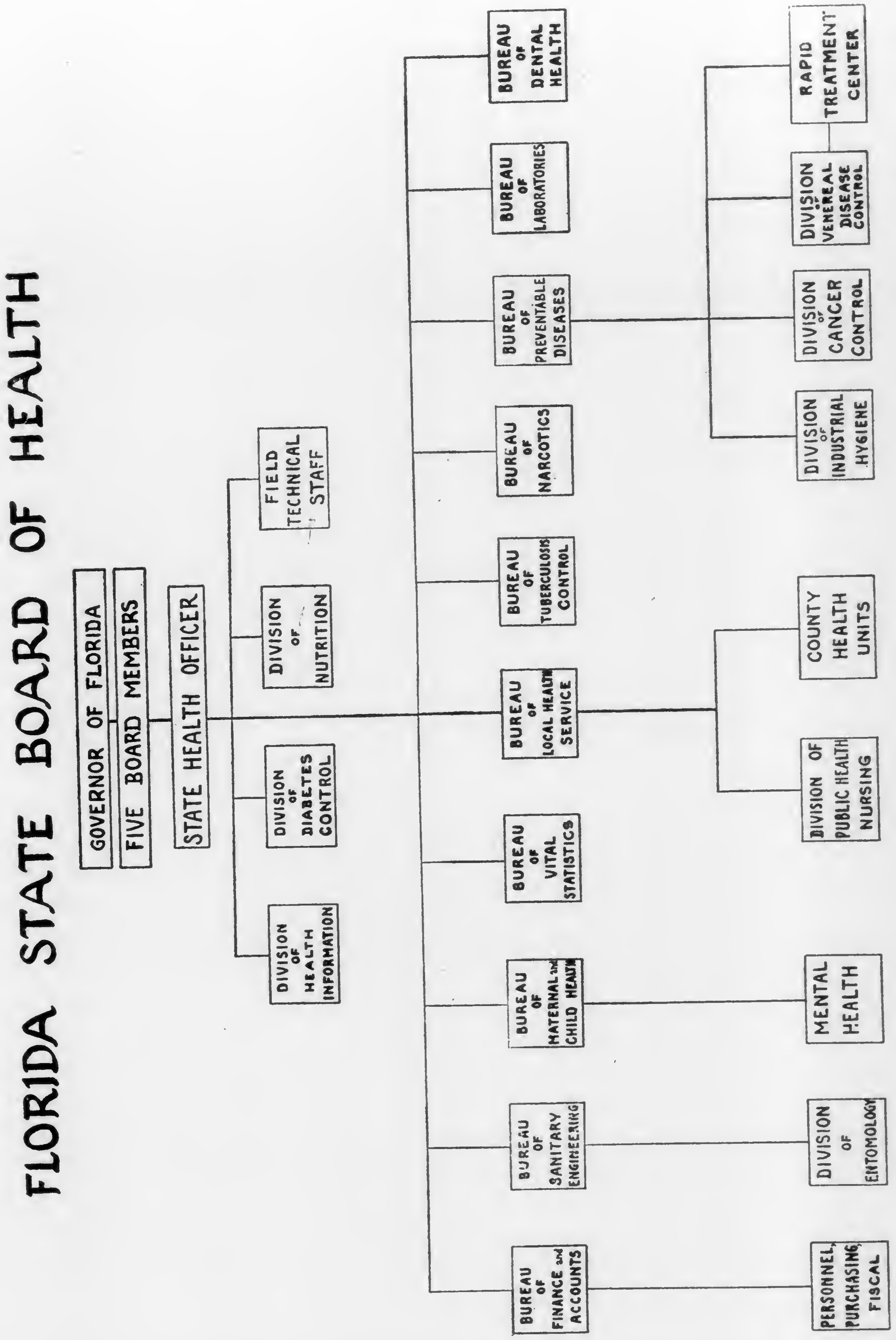
FLORIDA STATE BOARD OF HEALTH
GOVERNOR OF FLORIDA
FIVE BOARD MEMBERS
STATE HEALTH OFFICER
FIELD TECHNICAL STAFF
DIVISION OF NUTRITION
DIVISION OF DIABETES CONTROL
DIVISION OF HEALTH INFORMATION
BUREAU OF DENTAL HEALTH
BUREAU OF LABORATORIES
BUREAU OF PREVENTABLE DISEASES
BUREAU OF NARCOTICS
BUREAU OF TUBERCULOSIS CONTROL
BUREAU OF LOCAL HEALTH SERVICE
BUREAU OF VITAL STATISTICS
BUREAU OF MATERNAL AND CHILD HEALTH
BUREAU OF SANITARY ENGINEERING
BUREAU OF FINANCE AND ACCOUNTS
RAPID TREATMENT CENTER
DIVISION OF VENEREAL DISEASE CONTROL
DIVISION OF CANCER CONTROL
DIVISION OF INDUSTRIAL HYGIENE
COUNTY HEALTH UNITS
DIVISION OF PUBLIC HEALTH NURSING
MENTAL HEALTH
DIVISION OF ENTOMOLOGY
PERSONNEL, PURCHASING, FISCAL

TABLE OF CONTENTS

The Diamond Jubilee 1
Previews 3
State Board of Health and the State Health Officer 7
Cooperating Agencies 10
Finance and Accounts (including Personnel and Purchasing 12
Vital Statistics 24
Health Information (including Library and Food Handlers' School) 33
Preventable Diseases (including Venereal Disease, Cancer, Industrial Hygiene and Veterinary Diseases) 43
The Laboratory Services 73
Sanitary Engineering (including Entomology) 86
Local Health Services (including Public Health Nursing) 118
Field Technical Staff 156
Field Training Center 165
Maternal and Child Health (including Heart Disease and Mental Hygiene) 168
Dental Hygiene 184
Tuberculosis Control 187
Nutrition 213
Diabetes 223
Narcotics 227
Appendix 229

Edited By

KNOX E. MILLER, M.D.

THE DIAMOND JUBILEE

Sixty years ago (1889) the State Board of Health was created. The report which follows for the year 1949 will outline the stage to which the Board has evolved in the meantime, but a look at the picture as it existed in 1889 will serve to heighten the contrast between then and now.

Situated as it is in close proximity to the Carribean islands where yellow fever was rampant, Florida was particularly vulnerable to this disease at that time. Periodic visitations were not only an imminent menace, but were actually experienced with disconcerting frequence. The demand for a state health agency was, therefore, the outgrowth of this experience. As we now know, however, the efforts of the newly created Board to meet the emergencies of those times were almost wholly futile from the standpoint of actual control of the disease, though it did serve a good purpose as a morale builder and as a preventive of hysteria and panic. How could a Board, ever so earnest and diligent, successfully combat yellow fever and the other major pestilential diseases such as cholera, typhoid fever, malaria, diphtheria and tuberculosis, when the causes of these diseases were not even known to medical science? The one exception was smallpox, for which vaccination was known to be effective for prevention, though the actual cause was not known, and even to this day has not been demonstrated.

An attempt to contrast death rates in Florida for 1889 with those of the present day is fraught with extreme difficulties for the reason that there was no systematic and official recording of births and deaths at that time. Birth and death registration in Florida was first required by law in 1899. Some scattered reports resulted but effective registration began in 1917 after the passage of the model Vital Statistics law of 1915. Registration for deaths did not become acceptable to the Bureau of the Census until 1919, and for births until 1924. The most conservative estimates however prior to 1900 would furnish an astounding contrast between then and now. But to avoid uncertainty, the official figures for 1917 are cited:

	Death Rates Per 1,000 Population		Death Rates Per 1,000 Population	
	1917	1949	1917	1949
All Causes	13.1	9.5		
Tuberculosis			118.9	25.4
Syphilis			22.6	7.4
Typhoid			24.2	0.2
Diphtheria			10.1	0.4
Whooping Cough			5.4	0.2
Measles			18.6	0.3
Malaria			29.9	0.3
Dysentery			29.4	0.9

The improvements in maternal and infant mortality have likewise been phenomenal. In 1917 there were 11.6 maternal deaths for every 1,000 live birth, whereas the ratio was 1.8 per 1,000 in 1949; and the infant death rate has dropped from 105.9 per 1,000 live births in 1917 to 33.6 in 1949. It is the saving of life in infancy that has been the greatest factor in the lengthening the average life span from 53 years in 1917 to 67 in 1949.

HIGHLIGHTS FOR 1949

The report for 1948 recorded many significant advances in disease prevention, lowered mortality rates, and higher birth rates. During 1949 these lines have not only been held, but in most instances further advances have been scored. A preview of some of the highlights of the forthcoming report for 1949 will indicate some of the trends.

Preventable Diseases—From the morbidity standpoint special significance is attached to the reduction of diphtheria to 102 cases as compared to 314 during the previous year, and to 73 cases of typhoid and paratyphoid as compared with 112 in 1948, since these are the best indices of direct public health attack. On the other hand, the apparent increase of certain other diseases, such as tuberculosis, which advanced from 4,853 reported cases in 1948 to 6,467 in 1949 reflect commendable work because these figures indicate that a more thorough effort is being focused upon the discovery of cases.

With the exception of cancer and the cardio-vascular diseases, death rates have shown a definite downward trend, which, percentagewise, in many instances has been marked. Special stress has been placed upon the reduction of infant and maternal deaths, and while reductions have been achieved in each of these, the rates are still considerably above the national averages.

Local Health Services—During 1949 one more county, Martin, came into the full time health service program, and similar arrangements are in progress for St. Johns County, leaving only Collier, Lee and Hernando Counties unorganized.

During the year 1949 the terms of the Hill-Burton act have been liberalized so as to make possible much larger grants to local health units for construction of health centers. During 1950 a concerted drive will be made for adequate housing of local health units through the assistance of Hill-Burton funds.

Tuberculosis Control—Approximately 346,125 small x-ray chest films were made, and 30,000 large films, which were largely instrumental in the discovery of 3,347 cases. Facilities for handling the case load are in the process of completion through the addition of 425 beds in the new sanatorium at Lantana by the Tuberculosis Board.

Venereal Disease Control—Reported cases of both syphilis and gonorrhea decreased during 1949 as follows:

	Gonorrhea	**Syphilis**
1948	18,088	14,823
1949	14,605	12,304

It is believed that these decreases represent an actual rather than an apparent decline in these diseases. During the year approimately 7,000 persons were admitted to treatment in the Rapid Treatment Center.

Cancer Control—Applications for State aid to Cancer cases were approved for 1,052 patients.

Heart Diseases—Efforts toward control initiated in 1949 remained throughout the year entirely upon an educational basis, beamed primarily at the medical profession, except for the cardiac survey of school children in Pensacola in cooperation with the Navy.

Diabetes Control continued in Jacksonville on a demonstration basis, but has taken firmer root state wide through an increase of funds provided for the purchase and distribution of insulin, from $20,000 to $60,000 per year. The appropriating act also provided for a broadening of the educational phases into a state wide program. In the past 3 years 140 new cases of diabetes were discovered in Jacksonville.

Sanitary Engineering—The usual high level of performance was recorded by the Bureau of Sanitary Engineering as witnessed by the beginning of 39 new water treatment plants, and 36 sewage disposal plants, costing a total of $18,795,840. Plans for new water plants and/or systems or extensions were approved for 62 localities, while 18 were disapproved. Eight industrial waste treatment projects were initiated. Thirty-two stream pollution surveys were conducted in 27 counties, with six surveys in progress at the close of the year.

Laboratory Services—The number of examinations conducted during the year continued on the upgrade, with more than 2,000,000 tests as compared with 1,930,248 in 1948. The situation as regards inadequate quarters for both the central and branch laboratories has not been relieved, and suggests the urgent need for full utilization of Federal funds available through the Hill-Burton act for aid in hospital and laboratory construction.

A new virus related to that of poliomyelitis was isolated from five patients in Florida.

Food Sanitation—Through food handlers schools 8,489 persons completed the course and received certificates. The program is well received and is proving to be exceedingly popular.

Sanitation Visits made by local sanitarians for supervision of food handling, and other sanitary services totaled 301,570.

Entomology—State responsibility for mosquito control was recognized in an appropriation of $350,000 conditioned upon available funds. Due to the lowered incidence of malaria, the State Board of Health was notified by the Public Health Service that after the close of the fiscal year, June 30, 1950, no more money would be alloted to Florida for mosquito control.

Dental Health—A full time director was employed during the year. Demonstration of topical application of fluorides for the prevention of dental caries was carried out in 8 counties, and 5,263 elementary school children were given complete sodium fluoride treatment. Six counties maintained full time dental service, which accounted for 37,492 examinations, and 23,488 dental corrections.

Public Health Veterinary Service—Cases of rabies dropped from 332 in 1948 to 60 in 1949. There were no human cases. The brucellosis control program among dairy cattle was vigorously pursued.

Maternal and Child Health and Mental Hygiene—Maternal mortality survey committees, initiated in Dade County in 1948 were extended to Duval, Palm Beach, and Orange Counties in 1949. It is estimated that 13 more such committees are needed to give an adequate coverage of the State.

Work in the interest of premature infants has been a major activity. Approximately 200 incubators are owned by institutions, and 72 owned by the State Board of Health are loaned to the counties. The Board also owns and makes available to counties 32 specially equipped carriers for transporting premature infants.

The hearing program in the schools has received special attention from the Board through the use of funds from the Federal Children's Bureau for demonstration purposes. In addition to the audiometers previously supplied to local health units, six group audiometers were purchased in 1949. A Florida student has been awarded a three year fellowship in audiology and speech at Johns Hopkins School of Public Health, after which she will return to Florida as a special consultant to the State Board of Health in these fields.

Mental health is becoming increasingly popular. During 1949 the facilities of the six clinics in Bartow, Miami, Orlando, St. Petersburg, Tallahassee, and Tampa were extended so as to take care of 800 additional patients. Postgraduate institutes in Mississippi and Jacksonville afforded training in mental health to 63 doctors and nurses in public health and institutional service.

Public Health Nursing exemplifies the most intimate contacts with persons and their home life. It is a program of service exclusively, since it enforces no laws or regulations. The number of nurses employed in County Health Departments in 1949 was 278, of whom 23 are in a supervisory capacity. City health departments, the Crippled Children's Commission, insurance companies, and private agencies accounted for 105 additional public health nurses.

State nursing consultants made a total of 210 visits to local health departments for giving advice and guidance. Service visits made by County health department nurses alone ran well beyond 300,000.

THE STATE BOARD OF HEALTH

The State Board of Health is probably taken too much for granted. A brief explanation of its organization and functions is therefore believed to serve a useful purpose.

In accordance with Florida law, all of the responsibility for safeguarding and advancing the health of the people of Florida is placed upon the State Board of Health. The Board consists of five members who are appointed by the Governor and hold offices at his pleasure. Two of these are required to be doctors of medicine, one a dentist, one a pharmacist, and one a "discreet citizen." At the present time the "discreet citizen" is a doctor of medicine, so that there are three physician members instead of the minimum requirement of two.

The members of the Board serve without compensation. This being the case, it is obvious that they can not undertake the detailed management of the multiplicity of technical procedures that constitute the activities for which the Board is responsible. The only answer to this problem is the employment of a technically skilled administrator to carry out their over-all plans and policies. In practice, therefore, the Board is essentially a policy making group, determining the nature and scope of work to be done, the grouping of activities into Bureaus, Divisions, and sections, recommending new legislation, endorsing legislative budgets, maintaining liaison with the State Medical Society, public relations, etc.

The administrator, legally designated as the State Health Officer, is recommended by the Board and appointed by the Governor. All other employees of the Board are appointed by the Board upon recommendation of the State Health Officer and compliance with the Merit System requirements.

Other functions of the Board include the fixing of salaries and promotion schedules, and the adoption of rules and regulations pertaining to health matters, which may amplify but not conflict with State Statutes. It is the Board, also, which is the final authority for dismissing employees for cause.

Office of the State Health Officer

Here also the duties of the State Health Officer are likely to be submerged in the reports of the service branches. The

State Health Officer is not only responsible to the Board for the efficient operation of all its service units, but has many duties which he alone can perform.

His first duty, of course, is that of administering the entire program laid out by the Board. He must select suitable persons for specific jobs, and supervise their work to insure maximum efficiency. To this end he must be a master coordinator, to see that each activity is stressed in accordance with its relative importance in comparison with others.

Just as the Board delegates authority to him, the State Health Officer in turn must delegate responsibilities to the chiefs of the various subdivisions, bureaus, divisions, and sections.

Within the framework of the Board's policies, the State Health Officer initiates rules and regulations for adoption by the Board. Likewise, new legislation is initiated and prepared for the Board's approval. While the State Health Officer is restrained from "lobbying" for the passage of legislation, he must nevertheless marshall all legitimate interest in favor of needed laws. During the last session of the legislature he was instrumental in securing the passage of a revised Vital Statistics Law (see Vital Statistics Report), and a law requiring forcible hospitalization, if necessary, to infectious cases of tuberculosis. Two other laws carrying appropriations were enacted. The law relative to diabetes control was expanded to provide for a State-wide program and the appropriation for insulin was increased from $20,000 to $60,000 per year. To aid Mosquito Control districts an appropriation of $350,000 was made, provided funds were available in this amount. Actually, the money released for Mosquito Control purposes during 1949 was $5,000.

Proposed laws which failed to secure legislative approval included a bill for rabies control, and a bill for the creation of sanitary districts.

Large grants of Federal funds for aiding general health administration and many specialized activities, are made annually to the State Board of Health. Allocation of these funds to local units and accounting for their expenditure in accordance with specifications is a duty which falls upon the State Health Officer. In addition to the annual accounting for such funds, the State Health Officer must submit a plan of expenditures, together with budgets, for the succeeding year.

The demands upon the time of the State Health Officer for attendance at health conferences, local, state, and national, are enormous. Roughly speaking, half of his time would be spent in this way if he responded to all requests.

Another time consuming duty is in connection with State Boards, Commissions, and Committees. By law he is a member of the following: Florida Milk Commission, Florida Children's Commission, State Board of Funeral Directors, and the Hospital Advisory Council.

By request of the Governor or otherwise, he is a member of the following: State Council of Civil Defense; Health Committee of the Department of Education; State Resource-Use Education Committee; and the Florida Highway Safety Coordinating Committee.

The office of the State Health Officer sometimes resembles a complaint bureau. Every citizen who has an unresolved complaint which even remotely involves health, has the right of appeal to the State Health Officer, and many of them exercise this right. It is also a favorite practice for State and Federal legislators to pass on to the State Health Officer all health grievances received by them from their constituents within the State. Unfortunately, not all of these are health complaints, but commonly include all sorts of welfare problems.

Finally, the State Health Officer is the expert consultant to the Board on all technical matters pertaining to health. His advice and guidance is essential to the soundness of many of the Board's decisions.

From the foregoing it should be clear that to keep abreast of all of these duties and responsibilities, the State Health Officer would have to be a superman. This problem has been solved, in part at least, by the employment in September 1949 of an Assistant to share these obligations with the State Health Officer. Through their combined efforts the load is distributed equitably and with satisfying results.

COOPERATING AGENCIES

Though the State of Florida is far ahead of most of the States in its dependence upon its own resources, it is indebted in no small measure to assistance from other sources. In the main, this assistance is in the form of financial allotments, but personnel assignments are also of vital significance, as illustrated by the fact that the State Health Officer himself is an officer of the United States Public Health Service on loan to the State of Florida at the request of the Governor. Other members of the Staff on assignment from the Public Health Service include one doctor, one dentist, two dental hygienists, two nurses, one nutritionist, five technicians, three administrative and seven clerical workers and sixteen laborers.

Financial Allotments

1. U. S. Public Health Service for	
a. General Health Administration	$175,235
b. Tuberculosis Control	189,597
c. Venereal Disease Control (includes Rapid Treatment Center facilities)	423,647
d. Cancer Control	42,340
e. Mental Hygiene	64,849
f. Heart Disease Control	*17,330
g. Industrial Hygiene	15,607
h. Water Pollution Survey	*7,600
Sub Total	$936,205
2. U. S. Childrens Bureau	
Maternal and Child Health	210,280
Sub Total	210,280
3, Commonwealth Fund for Assistance in Supporting the Field Training Staff and Field Training Center	36,630
4. Pulp Industry for research in disposal of pulpwaste	7,500
5. Phosphate Industry for research in disposal of phosphate wastes	32,500
6. Rockefeller Fund for Typhus Survey	11,970
Sub Total	$88,600
Total	$1,235,085

"To him that hath shall be given" is a truism which is exemplified by the experience of the State Board of Health. It has been recognized in health circles generally that the Florida State Board of Health makes the best of its opportunities. For this reason, Florida is a favorite proving ground for health research projects. This circumstance is reflected in the cooperative enterprise listed above.

*Heart Disease control, $17,330, and Water Pollution survey, $7,600 represents six month allotments for period July 1, 1949-December 31, 1949, and as such are not included in Table I of the Financial Report.

BUREAU OF FINANCE AND ACCOUNTS

Fred B. Ragland, Director

The Bureau of Finance and Accounts has the responsibility of all fiscal, personnel, purchasing and property control matters.

The Bureau is a service organization, handling the business management of the Board. Every effort is made to handle efficiently and expeditiously to the best interests of all Bureaus, Divisions, and County Health Units the payment of salaries, travel expenses, and other obligations; the personnel actions such as recruitment, employment, termination, reclassification, salary changes, leave records, efficiency reports and training records; the purchasing by good business methods; and the control of property.

Fiscal Section

The financial transactions of the State Board of Health for the fiscal year ended June 30, 1949, as reflected by the records of the Bureau are presented in the condensed tables that follow. A detailed financial report for the fiscal year ended June 30, 1949, has been prepared and distributed to the Governor, members of the Governor's Cabinet, members of the Board of Health and all Bureaus, Divisions and County Health Units of the State Board of Health.

A brief summary of the financial operations of the State Board of Health for the fiscal year ended June 30, 1949, has been distributed widely in pamphlet form. Copies are still available upon request.

In addition to the funds disbursed as indicated in the following condensed tables, the State Board of Health was furnished supplies and materials and the services of a number of persons, the cost of which was borne directly by the U. S. Public Health Service, other State Departments and various local units of government within the State. The value of these services amounted to $551,639.56 and were mainly to aid the Venereal Disease, Tuberculosis, and Malaria and Typhus Control Programs.

During the year, the Fiscal Section processed approximately 20,000 vouchers for payment from 88 State Board of Health Funds. In liquidating all obligations of the Board, approximately 41,000 warrants to payees were handled.

Fiscal operation followed a budget plan of 101 departmental budgets. These budgets were frequently revised to meet changing situations. The majority of the revisions related to County Health Unit budgets primarily because the fiscal year of the County differs from the fiscal year of the State. At the time County Health Unit budgets were initially prepared, it was not known exactly what local funds would be available in each instance. It was, therefore, necessary to revise a number of the County Health Unit budgets during the year after the availability of funds from County sources was determined.

OFFICE OF THE PERSONNEL SUPERVISOR

Paul T. Baker, Personnel Supervisor

During the calendar year 1949 continued steps were taken in establishing more firmly the Merit System of personnel administration in the State Board of Health. Leave records were developed and maintained and periodic efficiency reports were obtained and recorded.

Records of in-service training of employees were maintained and the application of regulations governing such training was assured. All employees at State Headquarters were encouraged by the Personnel Supervisor to discuss their employment problems, if any, with him. At the prescribed times for consideration by the State Board, of salary increases, full information concerning each employee was made available to the Board in order that all employees might be treated equitably.

Careful check was made to insure that all appointments and terminations were made in accordance with the rules adopted by the State Board of Health.

The payrolls for all employees were prepared in the Personnel office and forwarded to the State Comptroller for payment. All matters pertaining to the retirement plan were handled promptly.

During the year 1949 one new County Health Department was organized. At the end of the year 63 of Florida's 67 Counties were organized and operating under the Merit System.

On December 31, 1948, there were 1,185 State employees and 31 Federal employees. On December 31, 1949 there were 1,216 State employees and 36 Federal employees.

During the year there were 350 employments and 319 terminations among State employees.

On December 31, 1949, the Merit System status of employees of the Board was as follows:

Permanent and Probational	886
Provisional	102
Temporary	1
Emergency	6
War Duration	0
Exempt and Part-time	221
Total	1,216

During the year specifications were adopted for 5 new classes; specifications were revised for 19 classes and 2 classes were abolished.

PURCHASING AND PROPERTY

G. Wilson Baltzell, Purchasing Agent

During 1949, the section received 1,684 requisitions from various departments and 3,387 purchase orders in the amount of $399,989.23 were issued. The number of requisitions and purchase orders for the year were less in each instance than the preceding year mainly for two reasons: First, for a portion of the year office supplies were requisitioned monthly through a temporary central purchasing system in Tallahassee which was ordered by the Governor under his executive authority; second, there was a curtailment of funds for the period July-September due to insufficient tax monies to meet State appropriations in full.

It is interesting to note here that during the 1949 Legislative Session the matter of central purchasing was strongly favored by the State administration. While this matter was being debated, various editorials appeared in the newspapers of Florida. There is cause for pride in one editorial of the Miami Herald under date of April 10, 1949, in which it was cited that various items of office supplies were purchased by various State agencies for amounts which differed considerably. For instance, letterheads were purchased by various agencies for $2.50 per thousand (State Board of Health price) to as high as $5.55 per thousand; onion skin copies from $2.41 per thousand (State Board of Health price) to $6.50 per thousand; No. 10 envelopes from $2.93 per thousand (State Board of Health price) to $7.50 per thousand. In each instance in which the State Board of Health was specifically mentioned, its price was the lowest.

During the year, a new tracer system was put into effect. This procedure is designed to insure that all purchase orders issued are acted upon promptly in order that goods or materials might be received, inspected, and invoiced so that the vendor may be paid with the least possible delay.

One of the functions of the Purchasing and Property Section is the processing of automobile accident and liability claims. The State Board of Health carries insurance coverage on the automobile fleet for public liability, property damage and comprehensive. The Board acts as self-insuror insofar as collision damage is concerned. During the year the insurance companies settled liability and property damage claims against the State Board of Health in the amount of $897.00 and one comprehensive claim in the amount of $50.00.

Since the Board acts as self-insuror for collision coverage, it might be stated that $702 was spent for collision repairs to units of the fleet. However, $242.00 was reimbursed to the State Board of Health by individuals and firms who admitted liability, leaving a net of $460.00, cost to the State Board of Health for collision damages, whereas the actual cost of insurance of this type would have cost the Board something over $2,000.00.

Fire insurance on buildings and contents is carried by the State through the office of the State Fire Insurance Commissioner. During the year, there was one fire at the Rapid Treatment Center Hospital at Melbourne in which the kitchen and mess hall were destroyed. This building and equipment was replaced out of the proceeds from claim made to the State Insurance Commission.

Buildings and Grounds

The Superintendent of Buildings and Grounds together with his personnel maintained the Central Office building during the year efficiently and economically. In addition, the maintenance staff was able to build a number of cabinets and educational displays at considerable savings over outside contractors' prices. During the year, several of the offices were improved by better lighting facilities, the most significant case being the Library. The new lighting fixtures in the Library now afford sufficient light for the reading tables as well as reference shelves.

There is still a lack of sufficient office space for the Central Office administration. In addition to the main building, the Board leases two buildings at the St. Johns Shipyard, offices at the corner of Clay and Adams Streets and offices in the Central Truck Lines Building on Pearl Street. During the year, the Board leased space in the Caldwell Building in Tallahassee which will serve as office space for the Regional Narcotics Inspector, the Regional Sanitary Engineer, and other Regional personnel. Also during the year the branch laboratory at Orlando formally began operations in buildings remodeled from Army surplus buildings which the Board was able to secure from the War Assets Administration. Also in this location, in addition to the Laboratory, is a Regional Office for the Division of Entomology and the Bureau of Sanitary Engineering.

Duplicating Department

New Public Health programs such as Diabetes, Heart Disease and Mental Health have increased the emphasis on Health Information materials, resulting in the Duplicating Department being called upon to turn out more pamphlets and literature than ever before. Also, a heavy demand has been made by the Bureau of Local Health Service, since all of their forms are being renumbered, and County Health Unit monthly activity reports revised. As to be expected, there was a sizeable increase in forms for the Bureau of Laboratories and Vital Statistics.

TABLE 1

STATEMENT OF AVAILABLE FUNDS AND CASH OBLIGATIONS FOR THE FISCAL YEAR ENDED JUNE 30, 1949

	TOTAL	State Appropriations and Authorized Fees	Local Health Unit Funds	Public Health Service	Children's Bureau	Other
AVAILABLE FUNDS:						
Cash Balance—July 1, 1948	$ 790,271.84	$ 253,369.97	$ 299,234.41	$ 144,770.23	$ 84,762.00	$ 8,135.23
Receipts:						
State Appropriations	1,715,791.51	1,715,791.51				
Fees Authorized by Law	66,136.73	66,136.73				
From Local Agencies for Local Health Units	1,462,287.45		1,462,287.45			
Federal Grants-in-Aid	1,121,556.66			911,275.74	210,280.92	
Private Contributions	48,600.37					48,600.37
Total Available Funds	$5,204,644.56	$2,035,298.21	$1,761,521.86	$1,056,045.97	$295,042.92	$56,735.60
% of Total	100%	39%	34%	20%	6%	1%
Adjustment to Reflect Transfers		— 744,040.00	$ 744,040.00			
Adjusted Total Available Funds	$5,204,644.56	$1,291,258.21	$2,505,561.86	$1,056,045.97	$295,042.92	$56,735.60
% of Total	100%	25%	48%	20%	6%	1%
CASH OBLIGATIONS:						
Total Operating and Non-Operating Disbursements (See Tables II & III)	$4,598,092.73	$1,133,874.69	$2,165,853.16	$ 966,768.60	$282,272.23	$49,324.05
Unencumbered Funds — Returnable to State Treasury and/or Contributors	147,086.36	138,414.27		3,741.72	4,698.82	231.55
Encumbrances	82,282.58	17,669.25		57,803.30	6,810.03	
Total Cash Obligations	$4,827,461.67	$1,289,958.21	$2,165,853.16	$1,028,313.62	$293,781.08	$49,555.60
% of Total	100%	27%	45%	21%	6%	1%
UNENCUMBERED FUNDS AVAILABLE FOR EXPENDITURE IN FISCAL YEAR 1950	$ 377,182.89	$ 1,300.00	$ 339,708.70	$ 27,732.35	$ 1,261.84	$ 7,180.00

TABLE II

STATEMENT OF OPERATING AND NON-OPERATING EXPENSES BY OBJECT FOR THE FISCAL YEAR ENDED JUNE 30, 1949

OPERATING EXPENSE	AMOUNT
Salaries	$2,896,461.23
Other Personal Services (includes fees for clinical services and for Vital Statistics Registrars and Cancer services	251,307.67
Travel Expenses, including subsistence and lodging	494,737.21
Communications	71,344.49
Supplies and Materials	313,840.33
Printing, Binding and Publicity	26,109.35
Repairs, Maintenance and Alterations	43,633.28
Rents	32,266.33
Miscellaneous Payments	23,569.04
Outside Laundering and Cleaning	7,700.55
Legal Expenses	2,883.24
Freight, Express, Drayage	6,329.89
Insurance and Bonds	14,962.52
Drugs and Biologicals	97,480.02
Hospital and Convalescent Care	35,115.52
Merit System	12,438.14
Emergency Maternal and Infant Care for Eligible Servicemen's Families	7,777.98
TOTAL OPERATING EXPENSES	$4,337,956.79
CAPITAL EXPENSE	**AMOUNT**
Equipment	$ 175,224.58
Building Construction and Real Property	46,048.90
Total Capital Expense	$ 221,273.48
TOTAL OPERATING AND CAPITAL EXPENSE	$4,559,230.27
NON OPERATING DISBURSEMENTS	
Transfers from Fee Account and Special Revenue Account Balances to State General Revenue Fund	$ 38,862.46
Total Non-Operating Disbursements	38,862.46
TOTAL DISBURSEMENTS	$4,598,092.73

TABLE III

STATEMENT OF OPERATING AND CAPITAL EXPENSES BY PUBLIC HEALTH PROGRAM ACTIVITY FOR THE FISCAL YEAR ENDED JUNE 30, 1949

ACTIVITY	AMOUNT
Health Services to Mothers, Infants, Preschool and School Children	$1,030,037.86
Statewide Venereal Disease Control, Diagnosis and Referral of Infectious V. D. Patients to the Rapid Treatment Center and Operation of Rapid Treatment Center	765,501.17
Sewage and Waste Disposal, Water Supply and Treatment, and General Public Health Engineering and Sanitation Operations	498,628.11
Statewide Tuberculosis Control, X-Ray Surveys and Follow-up Work	459,648.92
Statewide Mosquito, Pest Control, and Structural Pest Control Law Enforcement	294,758.29
Statewide Cancer Control Program	242,027.63
Vital Statistics Records and Reports	123,359.22
Public Health Training Program	92,087.84
Mental Health Program	65,738.61
Narcotic, Drug, Medical Practice Law Enforcement	58,181.19
Purchase of Insulin and Diabetic Education	34,225.87
Nutrition Investigations and Services	29,316.94
Statewide Dental Health Program	25,834.11
Industrial Hygiene Program	19,284.38
Merit System Operation	12,438.14
General Health Program, Education and Administration	808,161.99
TOTAL OPERATING AND CAPITAL EXPENSES	$4,559,230.27

NOTE:

The total operating expenses are summarized herewith as to Public Health program activity on an estimated basis since formal cost accounting by program is not maintained. The amounts designated have been determined after careful review of activity reports of County Health Units, various departments, and other fiscal data maintained in the Bureau of Finance and Accounts.

TABLE 4

DISTRIBUTION OF PERSONNEL AT MAIN OFFICE, BRANCH LABORATORIES AND RAPID TREATMENT CENTER DECEMBER 31, 1949

	Administration	Central Laboratory	Dental Health	Diabetes Control	Entomology	Field Technical Staff	Finance & Accounts (Fiscal)	Finance & Accounts (Personnel)	Finance & Accounts (Purch. & Prop.)	Health Information	Local Health Service	Maternal & Child Health (Bureau)	Maternal, Child Health (Mental Health)	Miami Laboratory	Narcotics	Nutrition	Orlando Laboratory	Pensacola Laboratory	Preventable Diseases (Bureau)	Cancer Control	Industrial Hygiene	Typhus Control	Venereal Diseases Control	Public Health Nursing	Sanitary Engineering	Tallahassee Laboratory	Tampa Laboratory	Tuberculosis Control	Vital Statistics	Rapid Treatment Center	TOTAL
Physicians	2	1		1		1					1	1				1				1	1							2		2	14
Nurses						2										1								3						6	12
Dentists			2																												2
Sanitation Personnel:																															
Graduate Engineers																					1				20						21
Others						3																1			1						5
Lab. Personnel (Tech.)		15		1	2									7			2	2			1					2	9			2	43
Health Educators				1						4		3				1															9
Nutritionists																1															1
Medical Social Workers																															
Clerical-Adminis.-Fiscal	3	9	1	2	2	3	11	7	6	3	3	2	1	3	3	2		1	2	4	1		3	2	9		3	9	42	4	141
Part Time										1			2	1								1				2		1			8
Exempt	3	29							9	2				6			2	2				5			1	1	7			28	95
Others		5			4				3	4				2	10			1	1			1	3		3	2	1	10	3	5	58
Federal Employees		1		7	26																		2								36
TOTAL	8	60	3	12	34	9	11	7	18	14	4	6	3	19	13	6	5	6	3	5	4	8	8	5	34	7	20	22	45	47	445

TABLE 5

DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS AND TRAINING CENTERS—DECEMBER 31, 1949

	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Citrus	Clay	Columbia	Dade	DeSoto	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry	Highlands	Hillsborough	Holmes	Indian River	Jackson	Jefferson	Lafayette
				(a)	(b)						(c)					(d)		(e)	(f)					(g)		(h)				(i)		
Physicians	2		1	1	1	1					1	5			1	2		1	1					1		1	4			1	1	
Nurses	9	1	4	3	3	9	1	1	1	3	2	54	1	1	10	8		1	5	1	2	1	1	1		2	23	2	2	3	1	2
Dentists	1											1															1					
Sanitation Personnel:																																
Graduate Engineers												1															1					
Others	1	1	2	1	2	4	1		1	1	2	27	1	1	6	5		1	2			1	1	1	1	2	12	1	1	1	1	
Laboratory Personnel (Technical)												1																				
Health Educators																																
Nutritionists																																
Medical Social Workers																																
Clerical-Administrative-Fiscal	4	1	2	1	1	3	1	1		1	1	28	1	1	5	5		1	3		1	1	1	1	1	1	22	1	1	1	1	
Part Time	3		1	1					1	1	1	12		1	2	2	1	1	1	1							9		2		1	1
Exempt		1	1									3			5	3											6					
Others	1		1									6			3	4										1	11	1		1		
TOTAL	21	4	12	7	7	17	3	2	3	6	7	138	3	4	32	29	1	5	12	2	3	3	3	4	2	7	89	5	6	7	5	3

(a) Also serves Clay and Union Counties.
(b) Also serves Osceola County.
(c) Also serves Gilchrist and Hamilton Counties.
(d) One also serves Santa Rosa County.
(e) Also serves Gulf and Wakulla Counties.
(f) Also serves Calhoun and Liberty Counties
(g) Also serves Charlotte and DeSoto Counties.
(h) Also serves Glades and Hendry Counties.
(i) Also serves Washington County.

TABLE 5

DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS AND TRAINING CENTERS (Con't.)—DECEMBER 31, 1949

	Lake	Leon	Levy	Liberty	Madison	Manatee	Marion	Martin	Monroe	Nassau	Okaloosa	Okeechobee	Orange	Osceola	Palm Beach	Pasco	Pinellas	Polk	Putnam	Santa Rosa	Sarasota	Seminole	St. Lucie	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla	Walton	Washington	Training Center	TOTAL
					(j)	(k)				(l)									(m)				(n)	(o)	(p)					(q)			
Physicians	1	1			1	1	1		1	1			1		1		2	2	1			1	1	1	1			1		1		1	46
Nurses	6	5	2	1	1	4	4	1	3	3	2	1	13	2	8	1	16	7	2	2	6	3	2	1	3	1	1	10	2	1	2	1	275
Dentists													1				1																5
Sanitation Personnel:																																	
Graduate Engineers															1		1	1														1	6
Others	3	3	1		1	2	3		1	1	1		4	1	4	1	12	6	2	1	2	1	2	1	1	1	1	4		1	1	1	144
Laboratory Personnel (Technical)																	1											1					3
Health Educators																	1											1					2
Nutritionists																																	
Medical Social Workers																																	
Clerical-Administrative-Fiscal	2	3	1		2	2	2	1	2	2	1	1	5	1	5	1	14	4	1	1	2	1	1	1	1	1	1	2		1	2	1	157
Part Time		4					1		1		1		6		6		2	2			1	2	1			1			1				71
Exempt		4							3	1							5											6		1		10	49
Others		1	1		1		2		1				2		1		3	1		2				1	1			3					49
TOTAL	12	21	5	1	6	9	13	2	12	8	5	2	32	4	26	3	58	23	6	6	11	8	7	5	7	4	3	28	3	5	5	15	807

(j) Also serves Taylor County.
(k) Also serves Sarasota County.
(l) Also serves Baker County.
(m) Also serves Flagler County.
(n) Also serves Indian River Martin and Okeechobee.
(o) also serves Citrus and Pasco Counties.
(p) Also serves Dixie and Lafayette Counties.
(q) Also serves Holmes and Okaloosa Counties.

BUREAU OF VITAL STATISTICS

—Everett H. Williams, Jr., Director

This report contains a brief summary of the statistical data tabulated for the year 1949 and covers the activities of the Bureau of Vital Statistics. The 1949 annual statistical report will be published separately as a supplement to this report and will contain more detailed statistical data regarding births, stillbirths, deaths, marriages, and divorces. Previous issues of these annual statistical reports may be obtained upon request to the Bureau of Vital Statistics.

Population

The population estimate for the State of Florida as of July 1, 1949 is 2,661,000, divided as follows: (1) 2,076,000 white, and (2) 585,000 colored.

Births

There were 61,642 resident births for Florida during 1949 and the rate was 23.2 per thousand population. This rate was slightly lower than the rate of 23.3 for the previous year. The white birth rate was 21.4 and the colored rate was 29.5 per thousand population. Table 6 shows the number of resident births and birth rates for this state for the period of 1931-1949.

Deaths

In 1949, there were 25,317 deaths among residents of this state and the death rate was 9.5 per thousand population. This is lower than the death rate for the previous year. The white death rate was 8.8 and was 27% lower than the colored rate of 12.1 per thousand population. Table A shows the trend of resident death rates in Florida for the years 1931-1949.

Heart disease continued to be the leading cause of death and accounted for 32% of all deaths. Other leading causes of death were cancer, vascular lesions affecting central nervous system, and accidents. It is very interesting to note that the three leading causes of death are the so-called old-age diseases. Since the average length of life is gradually increasing, one can also expect the percentage of persons in the older age groups to increase. Deaths and death rates for the abridged list of fifty causes are shown in Table 7.

Marriages and Divorces

There were 22,039 marriages performed in Florida during the year 1949. This represents a two per cent increase over the preceding year. Divorces decreased one per cent as 17,631 were granted during the year. The ratio of marriages to divorces was 1.25 as compared to 1.21 for 1948 and 1.16 for 1947.

Activities

A notable improvement in the vital statistics registration system was brought about by the passage of an amendment to the state vital statistics law by the 1949 State Legislature. This amendment classified birth records as confidential and restricts the issuance of certified photostatic copies to certain individuals who were deemed to have proper interest in the records. This will result in the protection of individuals from unnecessary disclosure of illegitimacy, adoption, or any other information of a personal nature on their birth record which might prove embarrassing. This amendment further provided for the issuance of a Birth Registration Card for most certification purposes. It is an attractive wallet-sized card encased in plastic containing only the name, date and place of birth, and birth certificate number. It can be issued to any applicant and is sufficient to prove age and citizenship, the purpose for which most birth certificates are needed. During the last 4½ months of the year 5,407 birth cards were issued.

The new revised birth, stillbirth, and death certificates recommended by the National Office of Vital Statistics were placed in use during the year. Stillbirths which were previously registered as both a birth and a death are now registered on a separate stillbirth certificate. Causes of death were classified according to the new International List of Causes by Death adopted by the World Health Organization in 1948.

There were 1,255 adoptive birth certificates placed on file during 1949 as compared to 1,126 for the previous year. There were also 2,499 delayed birth certificates registered. 1,173 of these delayed birth certificates were filed with the various County Judges and forwarded by them to this office. 71,482 requests were received for searching the records and 63,776 certifications were issued. The total amount of fees received duing the year was $54,408.25.

TABLE 6

RESIDENT BIRTHS AND DEATHS WITH RATES (Per 1,000 Population) FLORIDA, 1931-1949

Years	Population	Births	Birth Rate	Deaths	Death Rate
1949	2,661,000	61,642	23.2	25,317	9.5
1948	2,563,800	59,685	23.3	24,505	9.6
1947	2,466,600	60,201	24.4	24,150	9.8
1946	2,369,400	54,347	22.9	22,750	9.6
1945	2,272,200	48,839	21.4	22,594	9.9
1944	2,196,195	49,186	22.4	23,251	10.6
1943	2,125,935	46,763	22.0	23,213	10.9
1942	2,055,675	40,675	19.8	21,144	10.3
1941	1,985,415	37,351	18.8	21,438	10.8
1940	1,915,155	33,696	17.6	21,458	11.2
1939	1,853,660	32,437	17.5	20,209	10.9
1938	1,795,322	31,101	17.3	19,949	11.1
1937	1,736,984	29,529	17.0	19,825	11.4
1936	1,678,646	28,116	16.7	20,050	11.9
1935	1,620,308	28,058	17.3	19,059	11.8
1934	1,585,596	26,722	16.9	19,518	12.3
1933	1,557,976	25,647	16.5	18,112	11.7
1932	1,530,356	27,242	17.8	17,721	11.6
1931	1,502,736	26,789	17.8	17,291	11.5

TABLE 7

RESIDENT DEATHS FOR ABRIDGED LIST OF 50 CAUSES WITH DEATH RATES (Per 100,000 Population) BY COLOR, FLORIDA, 1949

CAUSE OF DEATH (Numbers in parentheses refer to the International List of Causes of Death)	DEATHS			DEATH RATES		
	Total	White	Col.	Total	White	Col.
ALL CAUSES	25,317	18,241	7,076	9.9*	9.3*	12.0*
Tuberculosis of respiratory system (001-008)	643	295	348	25.2	15.1	59.2
Tuberculosis, other forms (010-019)	34	11	23	1.3	0.6	3.9
Syphilis and its sequelae (020-029)	198	96	102	7.8	4.9	17.3
Typhoid fever (040)	5	2	3	0.2	0.1	0.5
Dysentery. all forms (045-048)	23	12	11	0.9	0.6	1.9
Scarlet fever and streptococcal sore throat (050, 051)	11	5	6	0.4	0.3	1.0
Diphtheria (055)	10	8	2	0.4	0.4	0.3
Whooping cough (056)	6	2	4	0.2	0.1	0.7
Meningococcal infections (057)	13	6	7	0.5	0.3	1.2
Acute poliomyelitis (080)	13	11	2	0.5	0.6	0.3
Acute infectious encephalitis (082)	8	7	1	0.3	0.4	0.2
Smallpox (084)	0	0	0	—	—	—
Measles (085)	8	7	1	0.3	0.4	0.2
Rabies (094)	0	0	0	—	—	—
Typhus and other rickettsial diseases (100-108)	3	2	1	0.1	0.1	0.2
Malaria (110-117)	8	3	5	0.3	0.2	0.9

TABLE 7 (Continued)

RESIDENT DEATHS FOR ABRIDGED LIST OF 50 CAUSES WITH DEATH RATES (Per 100,000 Population) BY COLOR, FLORIDA, 1949

CAUSE OF DEATH (Numbers in parentheses refer to the International List of Causes of Death)	DEATHS			DEATH RATES		
	Total	White	Col.	Total	White	Col.
All other diseases classified as infective and parasitic (030-039, 041-044, 049, 052-054, 058-074, 081, 083, 086-093, 095, 096, 120-138)	123	61	62	4.8	3.1	10.5
Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (140-205)	3,230	2,665	565	126.8	136.0	96.1
Benign and unsuspected neoplasms (210-239)	106	62	44	4.2	3.2	7.5
Diabetes mellitus (260)	350	270	80	13.7	13.8	13.6
Anemias (290-293)	84	56	28	3.3	2.9	4.8
Vascular lesions affecting central nervous system (330-334)	2,773	1,844	929	108.9	94.1	158.0
Nonmeningococcal meningitis (340)	55	28	27	2.2	1.4	4.6
Rheumatic fever (400-402)	32	19	13	1.3	1.0	2.2
Chronic rheumatic heart disease (410-416)	313	244	69	12.3	12.5	11.7
Arteriosclerotic & degenerative heart disease (420-422)	5,840	4,953	887	229.2	252.8	150.9
Other diseases of heart (430-434)	669	484	185	26.3	24.7	31.5
Hypertension with heart disease (440-434)	1,387	901	486	54.4	46.0	82.7
Hypertension without mention of heart (444-447)	259	174	85	10.2	8.9	14.5
Influenza (480-483)	124	44	80	4.9	2.2	13.6
Pneumonia (490-493)	573	326	247	22.5	16.6	42.0
Bronchitis (500-502)	45	33	12	1.8	1.7	2.0
Ulcer of stomach and duodenum (540, 541)	136	103	33	5.3	5.3	5.6
Appendicitis (550-553)	67	36	31	2.6	1.8	5.3
Intestinal obstruction and hernia (560. 561, 570)	180	116	64	7.1	7.9	10.9
Gastritis, duodenitis, enteritis & colitis, except diarrhea of the newborn (543, 571, 572)	156	77	79	6.1	3.9	13.4
Cirrhosis of liver (581)	263	226	37	10.3	11.5	6.3
Nephritis & nephrosis (590-594)	618	356	262	24.3	18.2	44.6
Hyperplasia of prostate (610)	131	83	48	5.1	4.2	8.2
Complications of pregnancy, childbirth and the puerperium (640-652, 670-689)	108	46	62	4.2	2.3	10.5
Congenital malformations (750-759)	286	231	55	11.2	11.8	9.4
Birth injuries, postnatal asphyxia & atelectasis (760-762)	433	303	130	17.0	15.5	22.1
Infection of the newborn (763-768)	66	26	40	2.6	1.3	6.8
Other diseases peculiar to early infancy, and immaturity unqualified (769-776)	757	451	306	29.7	23.0	52.0
Senility without mention of psychosis, ill-defined and unknown causes (780-795)	936	475	461	36.7	24.2	78.4
All other diseases (Residual)	1,893	1,416	477	74.3	72.3	81.1
Motor vehicle accidents (810-835)	662	501	161	26.0	25.6	27.4
All other accidents (800-802, 840-965)	1,005	734	271	39.5	37.5	46.1
Suicide and self-inflicted injury (970-979)	351	333	18	13.8	17.0	3.1
Homicide (980-985)	323	97	226	12.7	4.9	38.4

*Total deaths per 1,000 population.

TABLE 8

PROVISIONAL TOTALS FOR RESIDENT DEATHS BY IMPORTANT CAUSES, BY COLOR, FLORIDA, JANUARY-DECEMBER, 1949

CAUSE OF DEATH (Numbers in parentheses refer to the International List of causes of death)	DEATHS			Rate per 100,000 pop.		
	Total	White	Colored	Total	White	Colored
ALL CAUSES	25,058	18,051	7,007	9.8*	9.2*	11.9*
Tuberculosis of respiratoy system (001-008)	638	288	350	25.0	11.7	59.5
Tuberculosis, other forms (010-019)	34	11	23	1.3	0.6	3.9
Syphilis and its sequelae (020-029)	192	93	99	7.5	4.7	16.8
Typhoid fever (040)	5	2	3	0.2	0.1	0.5
Dysentery, all forms (045-048)	21	11	10	0.8	0.6	1.7
Scarlet fever and streptococcal sore threat (050,051)	11	5	6	0.4	0.3	1.0
Diphtheria (055)	10	8	2	0.4	0.4	0.3
Whooping cough (056)	6	2	4	0.2	0.1	0.7
Meningococcal infections (057)	11	6	5	0.4	0.3	0.9
Acute poliomyelitis (080)	14	12	2	0.5	0.6	0.3
Acute infectious encephalitis (082)	9	7	2	0.4	0.4	0.3
Smallpox (084)	0	0	0	—	—	—
Measles (085)	9	7	2	0.4	0.4	0.3
Rabies (094)	0	0	0	—	—	—
Typhus and other rickettsial diseases (100-108)	3	2	1	0.1	0.1	0.2
Malaria (110-117)	6	1	5	0.2	0.1	0.9
All other diseases classified as infective and parasitic (030 to 138 with exception of above causes)	110	58	52	4.3	3.0	8.8
Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (140-205)	3,160	2.609	551	124.0	133.1	93.7
Benign and unspecified neoplasms (210-239)	127	79	48	5.0	4.0	8.2
Diabetes mellitus (260)	350	270	80	13.7	13.8	13.6
Anemias (290-293)	84	56	28	3.3	2.9	4.8
Vascular lesions affecting central nervous system (330-334)	2,747	1,826	921	107.8	93.2	156.7
Nonmeningococcal meningitis (340)	53	28	25	2.1	1.4	4.3
Rheumatic fever (400-402)	43	30	13	1.7	1.5	2.2
Chronic rheumatic heart disease (410-416)	302	233	69	11.9	11.9	11.7
Arteriosclerotic & degenerative heart disease (420-422)	5,775	4,879	896	226.7	249.0	152.4
Other diseases of heart (430-434)	695	513	182	27.3	26.2	31.0
Hypertension with heart disease (440-443)	1,355	884	471	53.2	45.1	80.1
Hypertension without mention of heart (444-447)	253	167	86	9.9	8.5	11.6
Influenza (480-483)	122	44	78	4.8	2.2	13.3
Pneumonia (490-493)	594	340	254	23.3	17.4	43.2
Bronchitis (500-502)	47	34	13	1.8	1.7	2.2
Ulcer of stomach and duodenum (540, 541)	133	100	33	5.2	5.1	5.6
Appendicitis (550-553)	67	35	32	2.6	1.8	5.4
Intestinal obstruction and hernia (560, 561, 570)	183	118	65	7.2	6.0	11.1
Gastritis, duodenitis, enteritis & colitis, except diarrhea of the newborn (543, 571, 572)	154	73	81	6.0	3.7	13.8
Cirrhosis of liver (581)	257	220	37	10.1	11.2	6.3
Nephritis & nephrosis (590-594)						
Hyperplasia of prostate (610)	127	80	47	5.0	4.1	8.0
Complications of pregnancy, childbirth and the puerperium (640-652, 670-689)	104	45	59	1.7**	1.0**	3.4**
Congenital malformations (750-759)	278	226	52	10.9	11.5	8.8
Birth injuries, postnatal asphyxia & atelectasis (760-762)	422	296	126	16.6	15.1	21.4
Infection of the newborn (763-768)	54	19	35	2.1	1.0	6.0
Other diseases peculiar to early infancy, and immaturity unqualified (769-776)	759	460	299	29.8	23.5	50.9
Senility without mention of psychosis, ill-defined and unknown causes (780-795)	928	482	446	36.4	24.6	75.9
All other diseases (Residual)	1,885	1,399	486	74.0	71.4	82.7
Motor vehicle accidents (810-835)	638	480	158	25.0	24.5	26.9
All other accidents (800-802, 840-965)	1,014	737	277	39.8	37.6	47.1
Suicide and self-inflicted injury (970-979)	345	328	17	13.5	16.7	2.9
Homicide (980-985)	307	96	211	12.1	4.9	35.9
Infant mortality (deaths under one year of age)	2,066	1,220	846	33.4**	27.4**	48.9**

All figures for the current year are "PROVISIONAL"
*Rate per 1,000 population. **Rate per 1,000 live births.

Everett H. Williams, Jr.
2-1-50 Director

TABLE 9

MARRIAGES, DIVORCES, BIRTHS, DEATHS AND DEATHS FROM CERTAIN CAUSES, BY COUNTIES, FLORIDA JANUARY-DECEMBER, 1949

(Marriages and divorces are tabulated according to county of occurence. Births and deaths are tabulated according to county of residence)

Population Estimate 1949	Counties	Marriages	Divorces	Births	Deaths	Infant Deaths	Maternal Deaths	Tuberculosis	Syphilis	Typhoid Fever	Dysentery (All Forms)	Diphtheria
2,547,500	STATE	21,811	17,623	61,833	25,058	2,066	104	672	192	5	21	10
38,245	Alachua	313	281	1,451	414	34	5	10	6	1	0	0
6,326	Baker	37	148	187	45	3	1	2	0	0	0	0
48,000	Bay	230	111	1,216	245	34	3	9	0	1	0	0
12,400	Bradford	60	508	282	105	14	1	1	0	0	0	0
22,050	Brevard	149	432	429	227	13	2	3	1	0	0	0
59,300	Broward	1,240	368	1,835	680	81	1	15	5	0	2	0
8,230	Calhoun	26	51	205	47	7	0	2	1	0	0	1
4,690	Charlotte	44	22	73	56	2	0	0	0	0	0	0
5,427	Citrus	57	47	145	85	3	0	3	0	0	0	0
13,000	Clay	47	152	402	96	10	0	0	1	0	1	0
4,957	Collier	50	12	141	58	7	0	1	2	0	0	0
17,350	Columbia	71	57	506	185	14	2	2	2	0	0	1
355,300	Dade	5,125	4,636	9,659	3,879	279	14	111	31	0	1	0
6,854	DeSoto	95	19	180	107	9	0	0	0	0	0	0
4,926	Dixie	10	18	118	45	7	0	1	0	0	0	0
327,600	Duval	1,744	1,188	7,764	2,771	247	7	134	25	1	3	0
131,100	Escambia	...656	655	3,368	854	104	4	23	6	0	1	2
2,652	Flagler	42	88	84	40	5	1	0	0	0	0	0
9,700	Franklin	30	23	153	51	4	2	3	2	0	1	0
25,838	Gadsden	89	79	990	299	43	3	7	3	0	0	0
3,466	Gilchrist	27	6	79	22	3	0	1	0	0	0	0
2,281	Glades	46	6	31	18	0	0	0	0	0	0	0
7,060	Gulf	28	23	156	57	7	1	1	0	0	0	0
8,731	Hamilton	37	39	284	92	7	0	5	0	0	0	0
8,585	Hardee	108	304	204	116	10	1	3	0	0	0	0
5,066	Hendry	80	23	142	49	7	0	1	1	0	0	0
5,700	Hernando	82	28	163	63	5	0	0	0	0	0	0
22,100	Highlands	142	75	328	152	13	0	3	0	0	0	0
231,100	Hillsborough	2,260	1,212	5,450	2,358	192	9	72	15	0	3	1
14,627	Holmes	41	46	355	96	9	0	2	0	0	0	0
9,190	Indian River	111	45	271	110	7	0	3	0	0	0	0
34,590	Jackson	143	83	899	282	21	2	7	6	0	0	0
11,066	Jefferson	39	11	290	125	13	1	2	1	0	0	0
3,995	Lafayette	15	2	78	35	2	0	2	0	0	0	0
28,600	Lake	210	145	849	366	29	1	9	4	0	0	1
28,700	Lee	181	109	436	243	12	2	7	2	0	1	0
38,700	Leon	228	276	1,227	322	38	4	9	0	0	0	0
9,902	Levy	71	19	288	110	9	0	4	1	0	1	0
3,193	Liberty	15	19	77	26	4	0	0	1	0	0	0
15,537	Madison	37	44	439	167	22	0	2	1	0	1	0
27,400	Manatee	299	104	668	360	13	0	7	2	0	0	0
38,500	Marion	255	171	850	437	31	5	10	2	0	0	0
6,094	Martin	79	38	151	87	5	0	2	1	0	0	0
23,200	Monroe	364	311	650	188	27	0	7	0	0	1	0
10,900	Nassau	44	18	366	121	16	1	4	2	0	0	0
18,950	Okaloosa	133	128	833	160	24	1	3	0	0	0	0
2,919	Okeechobee	36	14	86	29	4	0	0	0	0	0	0
100,500	Orange	850	217	2,501	1,023	79	6	26	6	0	0	0
11,000	Osceola	164	31	200	172	6	0	3	0	0	0	0
139,500	Palm Beach	1,078	667	2,165	1,109	95	4	22	18	1	1	1
13,729	Pasco	199	87	403	221	14	2	5	3	0	0	0
162,500	Pinellas	1,297	735	2,333	1,922	61	2	32	13	0	0	0
134,000	Polk	1,075	975	2,779	1,097	100	4	21	6	0	0	1
17,837	Putnam	117	95	566	267	31	0	8	1	0	1	0
22,900	St. Johns	195	950	552	289	23	5	9	4	0	0	0
13,800	St. Lucie	209	95	526	200	28	0	4	0	0	0	1
17,800	Santa Rosa	80	41	515	160	25	0	2	0	0	0	0
21,800	Sarasota	249	180	502	290	13	0	8	2	0	0	0
26,500	Seminole	197	211	648	262	25	2	9	3	0	0	1
10,417	Sumter	101	84	250	87	13	0	3	0	0	0	0
18,000	Suwannee	96	57	492	173	29	2	3	2	0	0	0
10,738	Taylor	37	34	203	101	3	0	4	2	0	0	0
4,394	Union	19	21	122	53	0	1	0	0	0	0	0
62,500	Volusia	471	839	1,412	883	41	2	18	8	1	3	0
5,059	Wakulla	17	15	138	41	5	0	0	0	0	0	0
13,871	Walton	55	43	393	141	12	0	0	0	0	0	0
11.889	Washington	68	52	295	87	8	0	2	0	0	0	0

TABLE 10

RESIDENT DEATHS FROM CERTAIN CAUSES BY COUNTIES FLORIDA, JANUARY-DECEMBER, 1949

COUNTIES	Whooping Cough	Poliomyelitis	Typhus Fever	Malaria	Malignant Neoplasms (Cancer)	Diabetes	Anemias	Cerebral Hemorrhage Etc.*	Heart Disease	Hypertensive Disease	Influenza	Pneumonia	Nephritis & Nephrosis	Motor Vehicle Accidents	Other Accidents
STATE	6	14	3	6	3,160	350	84	2,747	6,772	1,608	122	594	617	638	1,014
Alachua	0	0	1	0	33	8	0	75	88	33	6	8	9	13	24
Baker	0	0	0	1	4	0	0	2	11	7	0	2	1	0	5
Bay	0	1	0	0	21	4	0	23	42	27	0	8	5	11	18
Bradford	0	0	0	0	14	1	0	10	26	14	2	8	3	1	1
Brevard	0	0	0	0	30	6	1	25	67	10	0	8	5	8	10
Broward	0	0	0	1	101	9	2	57	178	29	8	14	20	26	24
Calhoun	0	0	0	0	4	0	0	5	8	1	1	1	1	0	1
Charlotte	0	0	0	0	14	0	0	7	17	1	0	1	0	1	3
Citrus	0	0	0	0	15	0	0	13	23	6	0	1	3	2	6
Clay	0	0	0	0	9	0	1	10	20	4	0	4	1	3	9
Collier	0	0	0	0	7	2	0	4	9	1	0	1	2	9	3
Columbia	0	1	0	0	22	6	1	34	47	7	2	17	6	5	5
Dade	0	2	0	1	603	53	8	328	1,170	210	8	61	58	102	121
DeSoto	0	0	0	0	7	2	0	17	34	8	0	3	6	2	5
Dixie	0	0	0	0	3	0	0	8	10	3	1	4	0	0	1
Duval	1	1	0	2	321	34	4	303	583	193	10	80	70	67	125
Escambia	0	3	0	0	102	10	4	94	218	48	3	24	16	28	37
Flagler	0	1	0	0	2	2	0	3	11	4	0	1	3	1	3
Franklin	0	0	0	0	8	1	0	2	16	2	0	0	5	0	2
Gadsden	0	0	0	0	27	4	1	42	14	36	4	13	9	7	10
Gilchrist	0	0	0	0	2	0	0	1	4	2	0	0	1	0	1
Glades	0	0	0	0	3	0	0	2	2	1	0	2	1	2	1
Gulf	0	0	0	0	3	0	0	7	12	5	0	2	2	1	5
Hamilton	0	0	0	0	10	0	0	12	22	13	2	0	4	2	2
Hardee	0	0	0	0	17	1	0	23	22	2	0	4	1	1	6
Hendry	0	0	0	0	1	0	2	3	16	3	0	0	0	3	3
Hernando	0	0	0	0	4	1	0	15	16	2	0	1	3	1	3
Highlands	0	0	0	0	13	3	0	17	47	6	0	3	8	3	4
Hillsborough	1	1	0	0	298	44	15	210	598	195	1	46	97	46	92
Holmes	0	0	0	0	13	1	0	18	21	8	0	6	1	1	7
Indian River	0	0	0	0	15	1	2	5	25	4	0	2	1	4	12
Jackson	0	0	0	0	21	6	2	60	72	12	5	10	3	9	10
Jefferson	0	0	0	0	8	0	1	18	18	26	1	5	11	2	6
Lafayette	0	0	0	0	4	2	0	1	6	4	0	2	3	1	1
Lake	1	0	0	0	48	4	1	32	92	42	2	8	3	16	20
Lee	0	0	0	0	33	2	2	38	74	5	3	4	5	8	11
Leon	0	0	0	0	33	1	1	36	63	19	4	7	14	14	22
Levy	0	0	0	0	10	3	1	10	22	9	1	5	3	1	9
Liberty	0	0	0	0	3	0	0	4	7	2	0	1	0	2	1
Madison	0	0	0	0	10	1	0	22	41	15	3	6	4	2	8
Manatee	0	0	0	0	51	8	5	45	121	17	0	7	7	5	10
Marion	0	0	0	0	38	6	1	51	102	47	5	9	9	11	20
Martin	0	0	0	0	8	1	0	8	26	7	1	1	2	0	6
Monroe	0	0	0	0	29	5	0	16	39	12	0	4	2	3	7
Nassau	0	0	0	0	11	2	1	15	28	11	0	3	1	4	7
Okaloosa	0	1	0	0	9	2	0	15	34	12	1	8	4	8	14
Okeechobee	0	0	0	0	5	1	0	0	6	1	0	1	1	3	2
Orange	0	1	1	0	136	12	2	144	327	60	4	14	7	22	38
Osceola	0	1	0	0	26	3	2	19	66	4	0	3	2	4	7
Palm Beach	2	0	0	1	136	18	5	109	310	79	3	27	22	33	47
Pasco	0	0	0	0	32	1	1	29	67	19	0	3	2	5	8
Pinellas	0	0	0	0	277	29	2	256	675	70	11	33	47	22	41
Polk	1	1	0	0	149	10	8	115	308	66	6	24	21	11	48
Putnam	0	0	0	0	29	4	1	19	82	11	2	6	18	11	10
St. Johns	0	0	0	0	27	4	1	30	79	24	2	8	5	5	19
St. Lucie	0	0	0	0	22	3	0	21	53	6	1	10	7	10	5
Santa Rosa	0	0	1	0	16	2	0	14	34	8	0	4	5	8	15
Sarasota	0	0	0	0	37	4	2	37	96	16	0	8	7	10	11
Seminole	0	0	0	0	41	6	0	28	49	18	7	3	16	12	7
Sumter	0	0	0	0	7	1	0	6	21	8	0	1	2	2	5
Suwannee	0	0	0	0	22	3	0	12	51	11	3	5	2	3	6
Taylor	0	0	0	0	10	0	0	20	24	5	1	2	6	1	0
Union	0	0	0	0	7	1	0	10	14	3	0	1	2	3	4
Volusia	0	0	0	0	113	11	3	100	286	54	4	26	19	13	29
Wakulla	0	0	0	0	5	1	0	6	6	4	2	2	1	0	1
Walton	0	0	0	0	17	0	0	18	36	13	0	9	7	4	3
Washington	0	0	0	0	4	0	1	8	30	3	2	1	5	1	-

*Includes all vascular lesions of central nervous system.

TABLE 11

THE FOLLOWING INDICATES THE NUMBER OF MARRIAGES, DIVORCES, RESIDENT BIRTHS, DEATHS AND DEATHS FROM CERTAIN CAUSES, BY MONTHS, FOR 1949 AS COMPARED WITH THE PREVIOUS YEAR

MARRIAGES

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	1,401	1,666	1,746	1,774	1,553	2,287	1,706	1,665	1,953	1,802	1,955	2,303	21,811
1948	1,733	1,823	1,979	1,903	1,814	2,568	1,687	1,676	1,567	1,454	1,490	1,816	21,510

DIVORCES

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	1,235	1,259	1,680	1,688	1,767	1,672	1,546	1,415	1,391	1,308	1,278	1,384	17,623
1948	1,312	1,375	1,696	1,723	1,647	1,709	1,597	1,378	1,239	1,373	1,377	1,379	17,805

BIRTHS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	5,701	4,963	4.882	4,203	4,253	4.141	4,922	5,376	5,595	6,052	5,796	5,949	61,833
1948	5,264	4,716	4,691	4,226	4,262	3,978	4,987	5.671	5.640	5,562	5,225	5.463	59.685

DEATHS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	2,390	1,962	2,186	1,985	2,071	1,846	2,080	1,934	1,874	2,109	2,294	2,327	25,058
1948	2,508	2,044	2,094	1,945	2,009	2,014	1,888	1,946	1,899	1,994	1,992	2,172	24,505

INFANT DEATHS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec	Total
1949	218	159	198	152	173	143	161	152	158	186	202	164	2,066
1948	202	166	164	153	166	148	167	202	167	187	157	204	2,083

MATERNAL DEATHS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	12	7	10	7	8	7	8	6	9	8	14	8	104
1948	11	6	8	8	12	6	16	17	12	6	6	7	115

TUBERCULOSIS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	63	54	58	67	55	52	46	63	51	67	45	51	672
1948	67	50	65	67	56	66	64	66	72	62	54	44	733

SYPHILIS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	14	16	23	23	12	8	11	19	13	18	18	17	192
1948	22	16	25	19	20	21	23	15	17	21	22	24	245

TYPHOID FEVER

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	0	1	0	1	1	0	0	0	1	0	1	0	5
1948	0	1	0	0	2	1	0	0	0	0	0	0	4

DYSENTERY (All Forms)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	3	0	4	2	3	5	0	1	0	1	1	1	21
1948	1	4	0	0	0	2	2	2	3	1	3	0	18

DIPHTHERIA

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	1	2	1	0	1	0	0	1	2	0	1	1	10
1948	0	0	0	1	1	1	1	0	2	2	3	2	13

TABLE 12

THE FOLLOWING INDICATES THE NUMBER OF RESIDENT DEATHS FROM CERTAIN CAUSES BY MONTHS, FOR 1949 AS COMPARED WITH THE PREVIOUS YEAR

WHOOPING COUGH

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	0	1	2	2	0	0	0	0	0	1	0	0	6
1948	6	2	3	3	1	2	1	1	1	1	0	0	21

POLIOMYELITIS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	3	0	1	1	1	0	0	2	3	0	2	1	14
1948	0	1	0	0	3	2	4	2	4	2	0	1	19

TYPHUS FEVER

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	0	0	0	0	1	0	1	0	0	1	0	0	3
1948	0	1	1	1	1	0	0	2	0	2	0	0	8

MALARIA

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	0	2	0	1	0	1	0	1	0	0	1	0	6
1948	1	0	0	0	2	2	1	4	0	1	0	0	11

MALIGNANT NEOPLASMS (Cancer)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	292	244	244	250	282	248	273	252	257	275	268	275	3,160
1948	267	257	229	216	258	270	242	244	232	265	243	246	2,969

INFLUENZA

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	22	17	12	10	7	3	4	2	8	7	10	20	122
1948	25	24	23	4	3	2	2	3	4	10	6	14	120

PNEUMONIA

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	77	55	67	43	38	47	54	41	39	34	39	60	594
1948	121	89	71	47	47	47	45	40	53	56	56	76	748

MOTOR VEHICLE ACCIDENTS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	49	37	42	41	50	36	52	55	53	79	71	73	638
1918	61	52	49	58	73	52	47	52	42	55	52	75	668

OTHER ACCIDENTS

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1949	108	90	91	85	90	71	87	80	63	56	92	101	1,014
1948	131	98	84	112	106	111	102	114	103	87	95	111	1,254

DIVISION OF HEALTH INFORMATION

Elizabeth Reed, Director

The Division of Health Information has the responsibility of stimulating and coordinating activities in the State Board of Health which are concerned with the dissemination of information about health and health education. This includes consultative and technical assistance to all bureaus and divisions and county health departments, as well as the general public, either collectively or singly, who may wish information concerning health.

The Division of Health Information has fourteen employees:

1 Director
1 Supervisor of Food Handlers' Training Program
1 Press Secretary
1 Librarian
1 Library Assistant (Part-time)
1 Artist
2 Health Educators
1 Clerk (in charge of Film Library)
5 Clerks and Stenographers

Mr. Jess H. Wheeler served as acting director from January to June. Miss Elizabeth Reed returned from academic leave in June and was appointed director. Mr. Wheeler was assigned to the Food Handlers' Training Program until November 1 when he was transferred to the Division of Diabetes Control.

Health Educators

Miss Betty Gardiner served as state consultant in hearing and other health education programs. She left in September on academic leave.

Jesse Meuse, Negro health educator, continued to work in Jackson County under the direction of the county health officer. His activities have included: General health education programs, utilizing audio-visual devices, school programs, sanitary surveys, school examinations, radio and press broadcast releases. The general objective of the entire program has been the integration of school and community health.

Pamphlets

Regular surveys were periodically made to review all new pamphlets in the field of health. Samples of those thought worthy of note were distributed to the county health departments with notation as to their availability from this Division. Many requests are answered daily from schools, organizations, and individuals, as well as health departments. No new pamphlets originated in the Division. The price of literature continued to rise, and plans were made for a program to urge more constructive use of the smaller supplies available.

Exhibits

Three new exhibits were constructed on the subjects of tuberculosis, public health nursing, and local health service in Florida. "Growth Through Unity," an intricate exhibit employing electrical devices, was shown at the American Public Health Association Convention in New York City, where it won an award of merit. The theme was the rapid growth of county health departments in Florida. Dr. F. M. Hall, Director, Alachua County Health Department, helped to design and construct this exhibit.

Art Work

The work of the staff artist, in the field of graphic arts, consisted of the following approximate totals: Cover designs 11; graphs and charts 66; illustrations 80; letterheads 7; maps 5; posters 20; and signs 68. A total of 51 layouts were drawn for blotters, covers, exhibits, pamphlets, and posters. Not included in this figure were many additional layouts for FLORIDA HEALTH NOTES. Numerous stencils were cut for mimeographing letters, folders, and report covers. Consultation and cooperation were given in the completion of large exhibits for tuberculosis, public health nursing, and the "Growth of County Health Departments in Florida."

Blotters. The practice was continued of mailing a blotter at monthly intervals to every physician in Florida. The central motif is a stylized owl with the caption "Dr. S. Q. Lapius Says." Each blotter bears a timely message and the current month's calendar.

Postage Meter Ads—Four new postage meter ads were designed by our artist for use in the postage machines operated by the State Board of Health. All emphasized health.

Florida Health Notes

The publication of FLORIDA HEALTH NOTES continues to be one of the most important activities of this Division. Approximately 1/3 of the total budget is spent on its production. An endeavor is made to have various persons outside this Division cooperate in helping prepare manuscripts. Due to a curtailed budget, publication was suspended two summer months. Subjects covered were: Water, legislative needs, dental decay, mental health, health statistics, diseases of animals, health officers, laboratory services, nutrition and history of public health in Florida. The last-named appeared in February on the 60th anniversary of the founding of the Florida State Board of Health.

Press Secretary

In addition to handling routine press work such as weekly releases to all papers and radio stations in the State, the publicity section branched out to do more in the way of health education.

Assistance was given in the preparation of exhibits, a number of special health articles for a State magazine, and four HEALTH NOTES which were illustrated with photographs. Several national publications were kept informed of Florida's public health work.

The press was given "on the spot" coverage and photographs of a number of medical and lay meetings including: A diabetes seminar, Dental Health Day, mental health institute, mental health meeting for lay audience, annual graduate short course for physicians, heart seminar, and the Florida Public Health Association annual meeting.

County health departments planning publicity campaigns or programs on particular phases of public health were aided upon request. A number of allied state and local agencies were also given help on publicity.

Legislative Service

During the 1949 Session of the Florida Legislature this Division obtained copies of all bills introduced. These were scrutinized and public health personnel vitally interested in various bills were immediately notified of any action taken. A summary of all legislation pertaining to public health was prepared at the close of the session.

Cooperation With Other Agencies

This Division cooperates with many state and local organizations in the dissemination of health information. These are too numerous to mention. However, special mention is made of activities in connection with the State Department of Education: assistance in the preparation of health materials for schools; consultation to teachers' workshops, and participation in University conferences are some examples of working together on common health problems.

In-Service Education

A series of meetings were inaugurated to acquaint personnel in the central office with current programs of the State Board of Health. Speakers are directors of the various bureaus and divisions. One meeting weekly is held for professional and technical persons; another, for clerical personnel.

Film Library

The distribution of films in 1949 reached a new high. Witness:

	1949	% Increase Over 1948
Total number of films shipped	3,324	12
Total number of times shown	9,089	46
Total number of persons in audience	836,185	3

Of the total number of films booked 379 were returned not shown and 156 were returned without reports.

During 1949 twenty-three new titles and eight additional prints of old titles were added to the library which now contains over two hundred titles. These included films on the subject of nutrition, mental hygiene, the human body, and dental health. These titles were included in the new catalog which was issued in September. Additional prints bring the total number of films in the library to over 365.

The amount of equipment added during the year was comparatively small. This included one sound projector, one slide projector, one turntable, and one screen.

There was a noticeable increase in the number of schools booking films at the beginning of school for the entire school term. This is very gratifying and is considered to be an indication that borrowers are using audio-visual aids more intelligently.

The film library, as in other years, worked closely with the Bureau of Tuberculosis Control. Both 35mm and 16mm educational films and x-ray trailers were distributed for use during and preceding x-ray surveys. The library was closed during the month of August in order to repair films, take inventory, etc.

Future plans include a survey by mail of other state health department film libraries in an effort to learn more of their activities so that the service of our own film library may continuously be improved.

THE LIBRARY

Lora-Frances Davis, Librarian

CIRCULATION STATISTICS

Date	Books	Periodicals	Pamphlets & Reprints	Total	Borrowers
1946	908	682	520	2,110	No Record
1947	1,229	1,920	1,011	4,160	247
1948	1,287	2,604	1,238	5,329	436
1949	1,387	3,799	891	6,005	469

Actual Library usage has extended far wider than the statistics show. Of the 469 regular borrowers, 22 were known to borrow for re-circulation within a group. At the close of the year the Library had 722 books out on indefinite loan, and only the new loans are shown in the circulation count. These indefinite loans are either to people in the state offices who are making reference use of the books or to certain outside groups for special study—mental health centers, branch laboratories, Rapid Treatment Center, Duval Cancer Clinic, etc.

Decline in the circulation of pamphlets is attributable largely to the change in routing system used within the Division of Health Information. Also, the Division's pamphlet collection has expanded so that it is now possible to send free pamphlets in answer to many inquiries which formerly required library loans.

Of the reprints circulated 117 were microfilm loans from the Army Medical Library. In October the Bureau of Vital Statistics placed its microfilm reader in the Library. Since this reader has become more accessible to library patrons, requests for microfilmed articles have increased. Microfilm represents a considerable saving over interlibrary loans, each microfilm from a government agency representing a saving of $1.44 in transportation costs.

In 1949 the Library acquired 1,985 pieces of literature. Of this number 544 were added through the binding of journals. The other 1,441 were books and reports. A number of private collections and individual items were presented by physicians and their estates. The largest single contributors were Dr. George Mitchell of Jacksonville and Dr. Mark F. Boyd of Tallahassee. The purchasing policy continued to be that of buying first to meet the organization's actual needs and second to build a well rounded collection. Federal funds made possible building up the holdings on mental health, heart and circulation, maternal and infant care.

To accommodate these new books three double-faced sections of shelving were built by the Maintenance Shop.

Book lists were published in the November and December issues of the Duval County Medical Society Bulletin and in the Miami Heart Association publication. The December blotter, mailed to physicians over the state, called attention to the library's services.

It is estimated that around 2600 reference questions were answered during the year. Bibliographies are included in this count. In 1950 a separate count will be kept, as bibliographies consume over half of the librarian's time.

The Library received 472 current periodicals in English. Of this number 302 were gifts, 85 being from the Florida Medical Association. No effort was made to keep an account of the foreign journals because a policy has been inaugurated of sending all foreign journals on to the Army Medical Library.

This Library drew heavily on the Medical Library Exchange. The Library of the Royal Society of Medicine (London) sent, transportation free, one lot valued at $150, thus adding ten years of the *Proceedings of the Royal Society of Medicine*. The New Orleans Parish and Tulane Medical School Library sent over twenty packages to complete volumes for binding. These and many others cost only the postage.

In turn this Library assisted the Exchange with the Compilation of a collection to replace the University of Chile Medical School and Department of Public Health Library which burned.

Inventory was discontinued in July when the staff was cut. However, inventory of the journals in the Library proper had been completed. It is hoped that in 1950 the journals in the attic and all of the books can be inventoried. To this end, a part-time assistant was employed whose primary duties are cataloging and inventory.

As the year ended the Library was interested in three special projects: (1) assisting with the selections for the Tuberculosis Hospital Library at Lantana, (2) processing books for the Rapid Treatment Center at Melbourne, (3) processing books for the Miami Heart Association. This last collection will be an indefinite loan, and the books will be available for re-loan to the Association's 104 member physicians.

FOOD HANDLERS' TRAINING PROGRAM

E. Russell Jackson, Supervisor

The Florida State Board of Health Food Handler's Training Program continued its progress in 1949 with "schools" conducted on a scheduled basis in the periods January 18-June 9 and November-December 15. This year, more schools were held in the smaller counties, as the larger communities began to establish permanent programs.

The Florida Restaurant Association and the Florida Hotel Commission continued to approve this program.

Twenty food handlers' schools were presented in fourteen counties. These programs certified 2,258 persons as having completed the six basic hours in food handling sanitation. This figure represents an average of 112.4 certifications per school, which is below the previous average of 150.0 per school. Special awards were issued 262 establishments for having 80 per cent of their employees certified. (See Map in Appendix.)

1949 Figures

20	food handlers programs conducted in 14 Florida counties.
2,698	first day registrations.*
2,258	individual certificates issued.
262	special awards issued establishments with 80 per cent employees certified.

In addition to the regular schools conducted, five special food handling lectures were presented to select groups with an attendance of 233.

Among the objectives of the Food Handlers' Training Program is rendering assistance to counties and communities in the establishment of permanent schools. In 1948 Polk, Dade, and Pinellas counties set up permanent food handlers' training programs. Pinellas County, however, did not begin the operation of its program until January 1949 and, in this year, it was approved by the State Board of Health. Escambia County undertook food handlers' training in April 1949 and plans to hold schools every three months. Leon County established its program in November and anticipates conducting schools every ninety days beginning in February 1950. Volusia, Orange, Palm Beach, Broward, and Hillsborough Counties expected to organize and operate similar projects in 1949, but, due to inadequate funds and personnel they have not been able to see them accomplished. Polk County has had to suspend its activity for like reasons. The Dade County program, which conducts food handler schools from October through May, on a weekly basis, stands out above all programs in the State with 3,282 certificates in 1949. All approved county programs are supervised by the State Board of Health.

Other food handlers' training activities that should be noted in 1949 are the City of Jacksonville program which certified 844 and the Jacksonville Naval Air Station which has issued 246 State Board of Health certificates to persons completing an approved basic course.

In the fall schedule a new approach was attempted in the presentation of the courses. This approach involved the utilization of health department personnel, in as far as possible, in the giving of lectures, i.e. the health officer, sanitarian and nurse joined with the Food Handlers' Training Program Supervisor in the instructions. This was done in three of the counties where food handler schools were held in November and December. The reason behind this approach is to further encourage counties to establish permanent programs, identify the health department more with food handler training and put it before the public more effectively as joined with the State in this activity.

FOOD HANDLERS CERTIFIED NOVEMBER 1947 — DECEMBER 1949

PROGRAM	1947	1948	1949	TOTAL
State	260	8,035	2,258	10,553
Polk County	—	308	106	414
Dade County	—	943	3,282	4,225
Pinellas County	—	—	881	881
U. S. Naval Air Station Jacksonville	—	—	246	246
City of Jacksonville (12 hour course)	—	716	844	1,500
TOTAL	260	10,002	8,489	18,751

The Food Handlers' Training Program was enhanced this year by a Florida Food Handlers' Emblem which has been made available to all certified food handlers in the State who have completed a basic course in food handling sanitation approved by the Florida State Board of Health. This is a project of the Florida Junior Chamber of Commerce.

A mimeographed workbook, SUGGESTED OUTLINES FOR USE IN ESTABLISHING PERMANENT PROGRAMS was written to assist counties in planning programs and courses of instructions.

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*First day registrations alone are indicated since certificates are issued persons upon completion of all sessions of the three-day course. The per cent of registrants certified is 83.6.

(Foreword to Report on Preventable Diseases)

The report presented under the heading of "Preventable Diseases" is somewhat illogical because it does not include all of the diseases which belong in this category. For illustration, tuberculosis control is administered by a separate Bureau by that name. Likewise, mental and emotional disorders, and heart disease are conditions which are preventable to a considerable degree, but for administrative reasons, it has been found more practical to designate them as a responsibility of the Bureau of Maternal and Child Health. It will, therefore, avoid confusion if it is understood that certain preventable diseases are discussed in other sections of the report.

BUREAU OF PREVENTABLE DISEASES

L. L. Parks, M.D., M.P.H., Director

A glance at Chart I will show the organization of the Bureau of Preventable Diseases. In the following pages a report is included from the Division of Venereal Disease Control, the Cancer Division, Division of Industrial Hygiene, and the Division of Veterinary Public Health.

It is noted that Typhus Fever Studies are shown in Chart I under Epidemiology. These studies were made by the Rockefeller Foundation representatives and the report on these studies is also included in this report. (See appendix)

The Division of Epidemiology is practically non-existent at the present time except for the studies by the Rockefeller Foundation. Inasmuch as sixty-three of the sixty-seven counties are now covered by full time county health departments, there is little need for the service of an epidemiologist because each of the county health officers takes care of this service in his routine county health unit activities. In case the local health officer is in need of additional epidemiological services the staff of the State Board of Health is available for assistance, and we in turn may also have the assistance of the U. S. Public Health Service.

The following comments are of general interest for the year 1949 insofar as the overall communicable disease status is concerned.

During 1949 there was no increase in morbidity from any of the important reportable diseases. As a matter of fact, there was a decided decrease in many of the diseases which were on the increase in former years.

The reporting of cancer again showed a marked increase over preceding years, almost doubling the number reported in 1948. This is gratifying because it represents greater activity in case finding.

There was a marked decrease in the number of reported cases of diphtheria.

There were no notable outbreaks of enteric infections during 1949. There was a definite decrease in the number of bacterial infections.

For the first time in several years there were no reported cases of leprosy.

There was a marked decrease in the number of malaria cases reported.

There was a slight decrease in the number of typhus cases reported, although the number reported was almost comparable to the preceding year. There was a marked decrease in the number of cases of scarlet fever and whooping cough reported.

Compared to the preceding year the number of reported cases of typhoid was approximately one half.

There was a definite decline in overall reporting of venereal diseases, especially in the number of primary and secondary cases of syphilis reported. The number of granuloma inguinale patients remained at about the same level as the preceding year.

The incidence of all other reportable diseases, except tuberculosis, remained about equal to the median figures for preceding years. Tuberculosis data are given by the Bureau of Tuberculosis Control.

VENEREAL DISEASE CONTROL IN FLORIDA

The year of 1949 brought forth some very encouraging developments in the problem of venereal disease control. Although this is still a major health problem in the State it at last appears that real progress is being made towards controlling these diseases. For the first time in ten years the number of reported cases of syphilis has fallen below 15,000 to a low of 12,363 in 1949. During 1947 and 1948 there was an increasing number of primary and secondary cases reported, while 1949 experienced better than a 50% decrease in the number of these cases. There was a decrease in the number of cases reported for the other stages of syphilis also but not as marked as for the primary and secondary stages. (See Chart in Appendix.)

The other venereal diseases also show a decrease for 1949 with the exception of granuloma inguinale. It is believed that the increase in granuloma inguinale cases is a result of better diagnostic procedures and the use of the newer antibiotics in treating this disease, with almost miraculous results, has caused the patients to spread the word among their friends and resulted in many more cases coming to diagnostic and treatment facilities than ever before.

During the early part of the year an excellent program on the diagnosis and treatment of syphilis was presented in Jacksonville, Miami, Orlando, Pensacola and Tampa in order to make graduate instruction available to the practicing physicians.

Starting in July a state-wide educational program was inaugurated for the lay public. Practically every medium available was used to arouse public curiosity and interest in the venereal diseases, their cause, spread and cure. This program was carried on by five field representatives utilizing the radio, newspapers, literature, posters, pamphlets, talks, public address systems on automobiles, and arranging planned programs before civic groups, churches, schools, farm and industrial groups. After this program had been in operation a few weeks the number of persons reporting to clinics for diagnostic observations showed a steady increase.

The ever increasing effectiveness of the new drugs for combatting the venereal diseases and an increased educational and casefinding program should hasten the day when venereal diseases are reduced to a minimum.

It is planned during the coming year to increase and strengthen the field investigator staff and educational program in an all out effort to bring the problem under control.

FLORIDA RAPID TREATMENT CENTER
MELBOURNE, FLORIDA

During the year 1949 operations at the Florida Rapid Treatment Center, Melbourne, were carried out as in former years. all five venereal diseases (syphilis, gonorrhea, chancroid, granuloma inguinale, and lymphopathia venereum) receiving attention.

During the year a total of 7,037 patients were admitted and treated for a total of 72,057 days. Of these, 5,948 were suffering from syphilis in some form; these received treatment for 62,750 days. 624 additional patients held for observation or found to have no venereal disease accounted for the balance of 4,802 reported days.

A breakdown of patients is shown in the accompanying chart and summary.

Special cognizance should be taken of the fact that 3,110, or more than half the total syphilis cases, were patients with primary and secondary, or early latent syphilis, thus indicating that they were placed under treatment early enough to receive optimal results from treatment.

In comparison with previous years, there has been a gradual but well marked decrease in the number of patients admitted to the center for all causes. This is, in part, due to greater activity by out-patient clinics throughout the state in treating venereal diseases. In consequence, it has been possible to devote more time to the examination of patients and to securing a more detailed history of their condition. Greater effort is also being made in the education of patients while they are at the center—group talks, lectures illustrated with lantern slides as well as standard educational movies are presented to the patients at frequent and regular intervals. Informal talks and informative booklets are used to encourage their interest in venereal disease. Patients are also urged to ask questions and seek information in regard to their conditions at all times.

The staff consists of:

Medical Officers	2
Nurses	6
Laboratory technicians	3
Clerical	18
Attendants	18
Laborers	13

As in previous years, the serological department and laboratory have furnished valuable and reliable service and the interviewer has been the source of considerable aid in uncovering contacts.

A number of changes have been made in the buildings and the hospital administrative system to meet arising conditions which it is hoped may enable the Rapid Treatment Center to function better in the future and be of greater assistance in meeting the administrative responsibilities of those in charge of the public health of the State of Forida.

CANCER CONTROL

For nine months of the year, the cancer control program was seriously handicapped by a shortage of funds. Beginning February 1, the fees to physicians were reduced one half and the program was curtailed considerably by only accepting for state aid those cases which showed an excellent prognosis. Questionable cases were definitely rejected for care and were prevailed upon to seek some other means of assistance. In spite of this handicap, the program operated on practically the same level as during 1948, but the shortage of funds precluded any expansion in the program.

New clinics were contemplated and proposed in Tallahassee, Orlando, and Lakeland, and by the close of the year, with the receipt of new revenue from the state, it was again possible to make plans for the new clinics. These clinics should be in full operation sometime during the next year.

The cancer control law provided a four point program of (1) Education; (2) Establishment of tumor clinics; (3) Tissue diagnostic service to all needy patients; and (4) Financial aid in diagnosis and treatment of medically indigent patients within the limits of available funds. To provide these services, a state appropriation of $200,000 per year was made available by the Florida Legislature beginning with the fiscal year July 1, 1947. Beginning July 1, 1949, the Legislature appropriated $300,000 per year for cancer control. However, only 75% of the monthly allowance was available for the months of July through September. Beginning October 1, 1949, 90% of the monthly allowance was made available for the months of October through December.

The various maps and statistical charts covering the activities of the cancer program follow.

Map I shows not only the number of cases reported for each county of the state, but it also shows the number of cases that were given aid under the cancer control program. It is noted that all counties have received aid under this program from its beginning in July 1947, through December, 1949. It is also noted that in many counties there have been more cases aided than there have been cases reported. This is due to the fact that some of the cases turned out to be non-cancerous. The number of cases aided in Duval, Dade, and Hillsborough is small due to the fact that these counties operate their own city or county hospitals and the state cancer program's objective is not to take over the existing medical facilities, but to supplement any existing medical services. This explains the low number of cases aided in these counties.

Map II shows the location of the cancer diagnostic, detection, and treatment centers. It shows the distance in miles patients may have to travel to obtain services from one of the clinics.

Chart II shows the number of cases aided by counties, the amount of funds spent in each county for hospitalization and medical services. It is noted that two counties; namely, Collier and Jefferson, did not receive any aid for cancer patients during the year 1949. In comparison with the year 1948, it is noted that Flagler, Liberty and Okeechobee Counties did not receive any cancer aid services. The only reason that these counties did not receive any services has been that no applications were received from these counties during these respective years.

Chart III shows the number of biopsies made during the past three years. It is noted that the per cent of positives is showing a slight decrease each year. It may be that physicians are making more biopsies. As time goes by, it may mean that the percentage of positive cancer cases will gradually decrease; however, the number of specimens examined will probably increase as the program continues. This table shows the number of specimens examined under the biopsy mailing service and includes examinations made for other than state-aid cases. There are nineteen pathologists in the state practicing in thirteen counties who are cooperating in this program.

Chart IV shows the number of biopsies examined by months for the three years the cancer program has been operating.

Chart V shows the services rendered in each of the larger tumor clinics. It is noted that the number of individual physicians attending each of the tumor clinics shows the interest of the physicians in learning more about cancer. The control of cancer requires the services of the various specialists and the clinic sessions serve as instruction periods for physicians in attendance.

Chart VI shows the average cost per case for hospitalization and other services for the years 1948 and 1949.

Chart VII shows the number and percentage distribution of cases of cancer by site, race and sex, for 1949.

Chart VIII shows the number and percentage distribution of state aid cases according to status, by race and sex, 1948 and 1949.

VETERINARY PUBLIC HEALTH

The Veterinary Public Health Program, in the Bureau of Preventable Diseases, is concerned with all those diseases of animals transmissible to man,—those communicable by contact and association and those by ingestion of animal and animal food products.

Rabies still persists as a problem, but has been reduced materially from the previous year of 1948, when 332 animal and one human case were diagnosed and confirmed by the laboratory. In 1949 seventy-three animal and no human cases of rabies were reported. Table No. 1 gives these cases of rabies both by county and species. Six hundred twenty-eight (628) animal heads were examined in 1949. Fifty-eight of these were found positive by direct microscopic examination and fifteen additional were found positive by mouse inoculation. Mouse inoculation, or mouse tests, were made on all those specimens which were questionable upon microscopic examination or on those specimens not suitable for direct smear examination.

Seven hundred seventy (770) doses of human Anti-Rabies vaccine were dispensed in 1949 as compared to 1,322 treatments in 1948. The reduction in rabies is directly a result of better vaccination programs and stray dog control by those municipalities and County Health Departments where rabies existed. A state-wide rabies law was sponsored by the Florida State Board of Health and Florida Veterinary Medical Association, but was not passed by the 1949 legislature. (Map in Appendix.)

Brucellosis is a disease which affects both farm animals (cattle and hogs), and human beings, the latter receiving their infection from the former. In farm animals the disease is known as infectious abortions, or Bang's Disease, while in humans it is called Undulant Fever. Much progress was made in combatting Brucellosis in 1949. Major milk sheds in Florida, with the exception of two, have adopted or modified their milk ordinances with reference to Brucellosis. This ordinance requires that all cattle producing milk to be consumed raw, must be from herds free from this disease. A routine Brucellosis ring test is being run on this milk, which will give a perdiodic check on the status of the herd with each routine milk sample (usually once a month), supplementing the annual blood test as required to retain a negative herd status for milk to be sold raw. Also all herds producing milk for pasteurization must be under plans approved by the Florida Live Stock Sanitary Board and the U. S. Bureau of Animal Industry. In the two milk sheds mentioned above, all the cattle have been, or soon will be, on an approved Brucellosis program. As Florida is a dairy cattle importing state, this has been a major problem, as many of the cows imported are found, on arrival, to be infected. The family milk cow has not been overlooked and county sanitarians are cooperating with the federal, state and local veterinarians in arranging and assisting these veterinarians in testing and eliminating the infected animals. Brucellosis in man can only be controlled by eradication of the disease in animals. Eighty-six cases of human Brucellosis were reported in Florida during 1948. Again this appears to be much too low as compared to the disease incidence in the animal reservoir. In the past year, out of 99,456 cattle tested for Bang's Disease or Brucellosis, 10,579 were found to be infected. This high rate of infection, however, is the result of the concentration of effort in the commercial dairy herds where the per cent of infection is highest. (See Map in Appendix.)

Bovine Tuberculosis—All cattle from which milk is sold should be tested annually as required by the milk laws of Florida. This again is important as Florida imports a large per cent of its dairy cattle from areas where tuberculosis exists. Fifty-three tuberculosis reactors were found in 87,610 cattle tested. These reactors were in both dairy herds and in family milk cows. And until tuberculosis is completely eradicated, the Florida State Board of Health will encourage and continue to cooperate with the various control agencies concerned. (Map in Appendix.)

Twenty-nine cases of Tularemia are reported by laboratory diagnosis. No epidemiological survey of this disease was attempted.

Following a survey made by Dr. Sondag, Director of the Bureau of Preventable Diseases in 1948, in which, 1,100 physicians were contacted to determine the incidence of larva migrans or creeping eruption, five hundred fourteen, (514) physicians had reported and stated they had treated 7,781 cases in the previous six months. Creeping eruption of humans is contracted by contact with soil contaminated with the hookworm larva of the dog and cat. A study was started in cooperation with the U. S. Public Health Service, Communicable

Disease Center, and is still being made to determine the incidence of hookworm (Ancylostoma braziliense) in the cat and dog in Florida. Better control measures are being studied, which include soil larvacides and their usefulness in destroying the dog and cat hookworm larva in the soil. As this study is not complete, the control of creeping eruption is yet to be worked out. One obvious plan will be strict dog and cat control, especially on beaches and resort areas; the education of dog and cat owners of the need to free their pets from the hookworm infection and the practice of sanitary measures in disposing of dog and cat feces. Another method of control is the broad use of soil larvacidal agents, a number of which have been tested, but before they can be recommended, additional work as to their toxicity, etc., must be done.

The Veterinary Public Health Laboratory in the Bureau of Laboratories, Florida State Board of Health, has expanded its activities materially, thus giving additional assistance to veterinarians, physicians, animal disease control agencies and other phases of agriculture in better diagnosing those diseases of animals communicable to man. At the request of various veterinarians and the Florida State Veterinary Medical Association, open house was held at the State Board of Health Laboratory prior to the annual meeting of the Florida Veterinary Medical Association. New techniques and diagnostic aids, pertaining to veterinary medicine, were discussed and demonstrated. This was very well received and will probably become an annual custom. The report of the veterinary section of the Bureau of Laboratories will appear under the annual report of the Bureau of Laboratories.

Surveys of abattoirs and slaughtering plants have been made in many municipalities and counties, regarding the inspection and sanitation of meat and meat products. Meeting were held with cattle men, meat packers and the Live Stock Sanitary Board to plan more adequate and overall coverage of this phase of veterinary public health. Until the public can be educated to the need of this vital phase of food hygiene and demand that measure be taken through legislation to govern this industry, local and state health officials are at a loss. The committee on Food and Milk Hygiene at the American Veterinary Medical Meeting in San Francisco, reported that in 1947 more than 40,000,000 pounds of unfit meat went to public markets because of failure of many states, and municipalities to provide complete and adequate veterinary inspection at slaughter houses and abattoirs.

Federal meat inspection applies only to meat for interstate or foreign commerce. There are three such establishments in this state. Florida has legislation governing the slaughter, packaging and handling of meats and meat products on a *voluntary basis* for those abattoirs which wish an unrestricted market within the state. This is entirely voluntary and all but fourteen abattoirs maintain this type of inspection. The balance of animals slaughtered for food in Florida, are under municipal inspection, which varies in its degree of adequacy or under no sanitary supervision at all. There is a great need for state-wide supervision of meat and meat food products.

Public Health Veterinarians of the State Board of Health, have assisted in the training center, maintained by the Board of Health in Alachua County. They have helped in training sanitarians in milk inspection, meat market inspection and in rabies control as to investigation, quarantine and stray dog control measures. Three such classes have received this instruction in 1949. Also two Health Officers received some instruction in Milk and Food Hygiene and Rabies control.

With the assistance of the Bureau of Health Information, material was assembled for the July issue of FLORIDA HEALTH NOTES, monthly publication of the State Board of Health, devoted to Disease of Animals Communicable to Man.

DIVISION OF INDUSTRIAL HYGIENE

In carrying out the Industrial Hygiene portion of the Division's activities, 236 visits were made to 170 industrial plants, and 29 studies of potential hazards were done. Improvements were recommended in 38 cases and 19 improvements were effected. The work of surveying new industries was continued. First visits were made to two Federal agencies, the U. S. Naval Station at Green Cove Springs, and the Naval Submarine Base at Key West.

The chemical laboratory made 493 analyses on the 240 samples submitted. The program of blood and urine lead determinations was continued as was also the work on determination of mercury in urine. The occurrence of new potential hazards again widened the range of laboratory work.

The study of citrus dermatitis was continued. Over 1000 pH determinations were done, partly to determine whether the alkaline bath was a potential cause of dermatitis and partly to ascertain the pH range to which the sectionizer's skin is exposed while at work. Most of the occupational disease claims for citrus dermatitis were followed up. This problem still requires extensive investigation in order to define the causative factors.

Work was continued on dust studies initiated in West Florida in 1948. Studies were made in a fuller's earth mill, a monument works, and an iron foundry. A request was received from the safety officer at one of the Naval Stations for assistance in determining the degree of hazard at a wet sand-blasting operation. A study of this operation was made and recommendations for the control of the hazard were submitted to the officer in charge.

Requests for services totaled 53, many of them being concerned with complaints of atmospheric pollution. For one example, the division was called in consultation to investigate the cause of an occurrence of damage to nylon stockings. Chemical analysis showed that the nylon threads had been dissolved by a strong mineral acid carried by minute particles of soot. The principal source of the acid was the combustion of a sulfur-containing fuel oil.

A request was received from the school of Aviation Medicine, Naval Air Training Base, Pensacola, for assistance in determining the concentration of mercury vapor in the air of some of their research laboratories. A mercury vapor detector was borrowed from the U. S. Public Health Service for the purpose of making this study. The concentrations of mercury vapor were so small that they did not present a hazard to the exposed workers.

One new problem which confronted the division during the year was the potential hazard of cleaning gasoline tanks in airplane wings. Because the staff chemist was absent on post-graduate work, it was impossible to undertake the laboratory work required in such a study. The industrial physician concerned with this problem was referred to the Ethyl Corporation of America and satisfactory arrangements have been made to study the potential hazard involved.

The most troublesome problem in atmospheric pollution was presented by the operation of a small lead smelter. Discarded storage battery plates were being reduced to metallic lead with a small content of antimony. The dense fumes given off in the process created a serious nuisance in a nearby housing development as shown by the fact that the lead concentration in the smoke at a distance of 1,000 feet downwind was in excess of the maximum allowable concentration permitted in industrial operations. Executives of the company made some changes in the process when the hazard was drawn to their attention, but the nuisance persisted. The residents of the community obtained an injunction, halting the operation of the smelter until the nuisance could be corrected.

A considerable amount of attention was given to the prevention of parathion poisoning. The circular issued by the U. S. Public Health Service was mimeographed and 542 copies were sent to insecticide and fertilizer plants, grove owners, and county health departments. In addition, a short editorial on parathion poisoning was contributed to the Journal of the Florida Medical Association. In spite of these precautions one man died from parathion poisoning. One other patient had a relatively acute case, but recovered and several minor cases were reported.

An investigation was made of an epidemic of anaphylactic reactions to castor bean meal. While this disease entity had been previously recognized, the medical literature on the subject is rather scanty. It has been suggested to the attending physician that he publish his findings.

Suggestions were given to the Florida Industrial Commission concerning the proposed revision of its publication containing the rules and regulations for the prevention of occupational diseases. One inspector of the Florida Industrial Commission was shown through a lead smelter in Miami, and the process of a Tampa smelter was demonstrated to another inspector of the Commission. As in previous years, copies of all claims of occupational diseases were referred to the Division of Industrial Hygiene.

The director assisted in making the annual physical examinations of personnel of the Florida State Board of Health. The division was responsible for most of the First Aid treatment rendered for personnel of the Central office. A revision of the Merit System requirements for sanitary engineer was made with the cooperation of the Bureau of Sanitary Engineering.

The only publication for the year was the paper on "Citrus Dermatitis in Florida," published in the Journal of the Florida Medical Association. A number of abstracts were contributed to Excerpta Medica.

Among the meetings attended by one or more members of the staff were the Annual Meeting of the American Conference of Governmental Industrial Hygienists, and the Florida Engineering Society. In addition, a paper was read at the Florida Medical Association meeting at Bellaire. A course on the Medical Aspects of Nuclear Energy, held in Washington, was attended.

In September, 1949, Mr. W. E. MacDonald, Industrial Hygiene Chemist, began a post-graduate course in the University of Florida at Gainesville in order to qualify for the degree of Master of Science.

Occupational Disease Claims

JANUARY 1, 1949—DECEMBER 31, 1949

TOTAL		1352
Conjunctivitis		237
Welders	232	
Chemical	5	
Infection		43
Meat	18	
Undulant Fever	1	
Brucellosis	2	
Tuberculosis	2	
Typhus Fever	1	
Other	19	
Tenosynovitis		12
Repeated Motion, Pressure & Shock		27
Respiratory Irritations		67
Temperature Changes		5
Gas		2
Metals		4
Lead	3	
Other	1	
Silicosis		1
Variations in Air Pressure		2
Diagnosis Indefinite		3
Dermatitis		949
Fruit	214	
Alkali	178	
Larva Migrans	148	
Other Chemicals	105	
Fungus	71	
Plant	42	
Glue	8	
Creosote	8	
Solvents & Oils	101	
Actinic	2	
Parasite	2	
Other	70	

CHART I

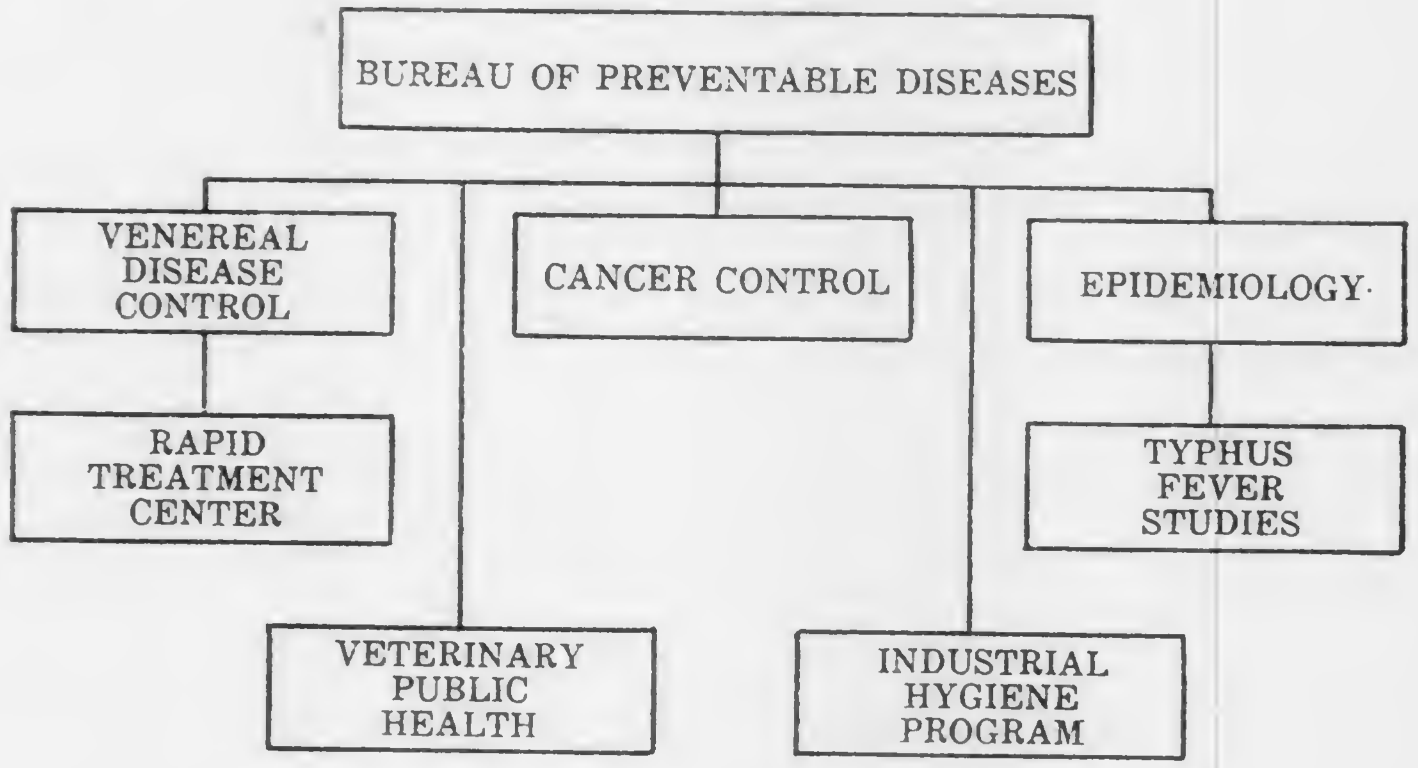
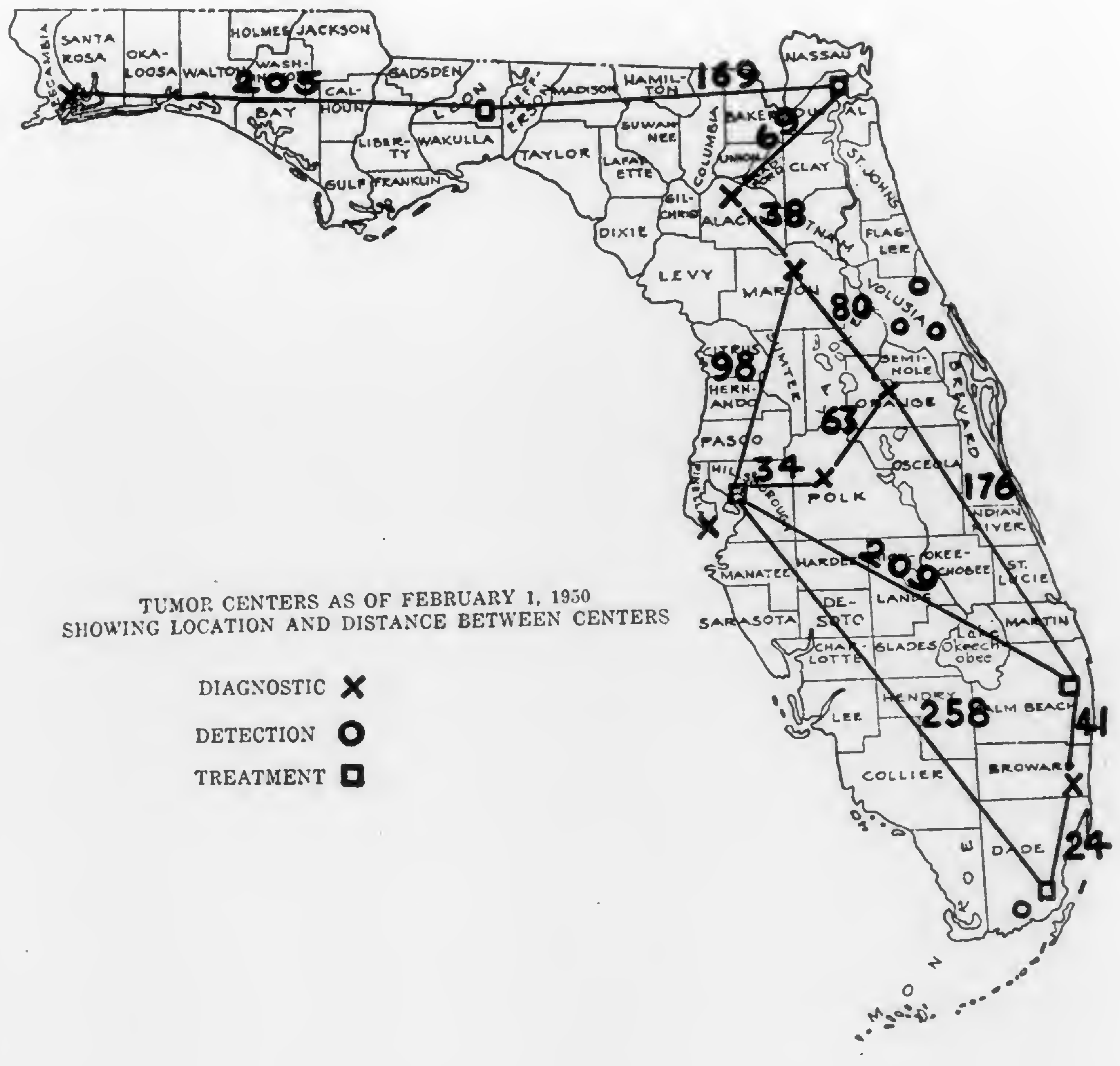


CHART II — STATE AID CANCER CASES AND EXPENDITURES FOR 1949 BY COUNTY AND SERVICE RENDERED

COUNTY	TOTAL	State Aid Cases	HOSPITAL			SURGERY	
			Cs.	Days	Cost	Cs.	Cost
GRAND TOTAL	$124,495.63	1,176	556	4,700	51,154.16	216	15,457.50
Alachua	3,332.75	36	22	131	1,537.60	6	350.00
Baker	1,326.32	17	7	48	582.02	2	75.00
Bay	2,469.65	22	10	95	861.25	2	100.00
Bradford	1,385.27	19	6	42	451.27	1	50.00
Brevard	698.20	5	2	31	403.70	1	50.00
Broward	3,132.45	23	18	126	1,548.70	2	70.00
Calhoun	809.20	17	5	14	322.20	-	-
Charlotte	691.22	9	4	27	237.38	-	-
Citrus	502.88	3	2	18	249.88	-	-
Clay	1,243.27	3	3	29	451.22	-	-
Collier	-	-	-	-	-	-	-
Columbia	2,123.37	15	8	83	892.37	6	210.00
Dade	64.50	1	1	2	12.00	-	-
DeSoto	633.40	5	3	22	226.05	-	-
Dixie	40.06	2	1	2	15.06	-	-
Duval	3,047.60	14	8	120	1,298.85	2	275.00
Escambia	6,765.36	69	32	229	2,660.50	11	740.00
Flagler	265.84	1	1	14	135.84	1	100.00
Franklin	1,266.50	19	5	44	588.00	2	100.00
Gadsden	481.30	5	2	17	109.60	-	-
Gilchrist	12.50	2	-	-	-	-	-
Glades	1,029.65	4	3	33	471.00	2	175.00
Gulf	547.00	13	4	17	174.00	-	-
Hamilton	525.00	9	1	3	40.50	-	-
Hardee	1,349.66	12	6	57	625.36	3	275.00
Hendry	540.95	4	2	17	121.50	1	100.00
Hernando	901.98	4	2	55	472.38	1	100.00
Highlands	1,179.50	9	4	37	325.75	3	145.00
Hillsborough	6,051.54	62	31	246	2,592.23	6	522.50
Holmes	3,240.99	42	18	128	1,738.24	8	322.50
Indian River	1,711.70	19	7	54	742.01	5	120.00
Jackson	1,974.90	30	11	76	587.40	3	120.00
Jefferson	-	-	-	-	-	-	-
Lafayette	360.50	2	1	15	211.50	1	125.00
Lake	443.48	8	3	10	135.98	4	215.00
Lee	2,775.52	7	6	104	1,161.93	5	600.00
Leon	2,827.00	17	11	112	1,172.80	6	400.00
Levy	307.50	5	2	12	139.50	2	110.00
Liberty	261.90	3	3	21	226.90	1	25.00
Madison	2,669.24	12	8	102	1,515.49	6	822.50
Manatee	1,792.54	19	4	35	498.29	3	292.50
Marion	1,647.20	23	10	42	466.25	3	210.00
Martin	1,645.99	7	6	57	672.17	3	167.50
Monroe	461.30	5	3	13	231.75	-	-
Nassau	1,316.82	7	4	68	528.92	2	142.50
Okaloosa	1,386.95	29	7	22	176.50	3	85.00
Okeechobee	184.30	3	1	11	121.80	-	-
Orange	6,472.78	51	38	319	3,071.86	6	462.50
Osceola	1,355.94	9	3	86	529.25	1	100.00
Palm Beach	16,610.98	102	57	581	6,729.29	32	2,437.50
Pasco	2,698.09	18	11	150	1,462.89	5	355.00
Pinellas	3,555.25	58	22	119	1,018.54	17	1,022.50
Polk	7,630.33	64	33	317	3,334.28	12	1,212.50
Putnam	2,244.05	9	5	98	976.95	5	372.50
St. Johns	1,107.04	5	3	70	702.04	2	230.00
St. Lucie	1,235.99	10	7	42	503.34	1	100.00
Santa Rosa	851.15	18	3	26	282.00	2	200.00
Sarasota	2,022.04	14	8	76	652.12	4	325.00
Seminole	783.83	11	6	29	212.58	-	-
Sumter	835.51	6	3	31	271.00	2	175.00
Suwannee	975.93	13	5	30	320.93	2	225.00
Taylor	567.81	7	1	23	223.81	-	-
Union	348.17	7	4	11	155.17	2	60.00
Volusia	3,921.26	50	22	123	1,462.02	11	775.00
Wakulla	241.60	7	3	7	68.50	1	25.00
Walton	1,304.95	34	8	40	390.75	1	10.00
Washington	2,308.18	41	16	81	1,053.90	3	175.00

CHART II — STATE AID CANCER CASES AND EXPENDITURES FOR 1949 BY COUNTY AND SERVICE RENDERED (Continued)

X-RAY RX.		X-RAY DIAG.		RADIUM		BIOPSY		OTHER	
Cs.	Cost	Cs.	Cost	Cs.	Cost	Cs.	Cost	Cs.	Cost
442	23,408.00	396	5,077.90	60	4,736.37	167	4,389.25	509	20,271.75
7	517.50	13	124.75	-	-	15	375.00	17	427.90
6	357.50	6	62.50	-	-	2	45.00	7	204.30
11	452.50	14	255.25	1	85.00	1	25.00	9	690.65
13	525.00	2	17.50	1	75.00	3	120.00	7	146.50
3	180.00	1	7.50	-	-	-	-	4	57.00
11	635.00	3	85.00	6	392.50	2	60.00	9	341.25
6	250.00	13	152.00	-	-	1	25.00	3	60.00
5	285.00	-	-	-	-	-	-	5	168.84
2	200.00	-	-	-	-	-	-	2	53.00
2	225.00	2	67.50	2	150.00	-	-	3	349.55
-	-	-	-	-	-	-	-	-	-
5	425.00	4	42.50	1	75.00	2	60.00	8	418.50
-	-	1	22.50	-	-	-	-	1	30.00
4	306.25	-	-	1	71.20	-	-	2	29.90
1	25.00	-	-	-	-	-	-	-	-
8	647.50	2	10.00	2	150.00	2	150.00	7	516.25
41	2,250.00	19	302.65	1	37.50	5	77.50	28	697.21
-	-	-	-	-	-	-	-	1	30.00
9	300.00	16	167.50	-	-	1	25.00	5	86.00
3	235.00	3	37.50	-	-	1	50.00	2	49.20
-	-	1	7.50	-	-	-	-	1	5.00
1	62.50	-	-	-	-	1	75.00	3	246.15
3	135.00	7	52.50	-	-	4	100.00	3	85.50
5	230.00	2	27.50	1	150.00	3	62.00	2	15.00
4	185.00	3	41.50	1	50.00	-	-	5	172.80
2	87.50	-	-	-	-	1	32.50	1	199.45
3	215.00	2	32.50	-	-	-	-	2	82.10
3	142.50	3	30.00	-	-	-	-	5	536.25
29	1,507.50	26	367.00	-	-	-	-	22	1,062.31
13	572.50	30	289.25	2	75.00	2	25.00	15	218.50
6	241.25	4	70.00	2	217.44	2	33.00	14	288.00
11	422.50	19	192.50	1	25.00	-	-	13	627.50
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	1	24.00
2	55.00	2	15.00	-	-	-	-	2	22.50
3	410.00	2	37.50	-	-	-	-	6	566.09
7	472.50	5	59.00	2	150.00	3	115.00	7	457.70
1	32.50	2	10.00	-	-	-	-	1	15.50
-	-	-	-	-	-	-	-	1	10.00
2	80.00	2	17.50	1	75.00	2	10.00	5	148.75
10	787.50	4	37.50	-	-	1	15.00	6	161.75
12	655.00	3	80.00	-	-	5	150.00	5	85.95
-	-	1	27.50	1	79.32	3	101.00	5	598.50
2	105.00	1	17.50	-	-	-	-	2	107.05
2	140.00	3	27.50	1	37.50	3	70.00	6	370.40
14	712.50	17	215.00	-	-	1	25.00	7	172.95
-	-	1	27.50	-	-	1	25.00	1	10.00
12	725.00	9	100.00	7	526.75	14	347.00	31	1,239.67
6	232.50	1	7.50	-	-	2	87.50	3	399.19
30	1,832.50	29	501.25	14	1,773.19	21	715.00	56	2,622.25
6	455.00	4	45.00	-	-	1	2.50	6	377.70
16	400.50	12	200.00	-	-	6	132.50	30	781.21
28	1,502.50	9	193.00	7	250.00	7	222.50	22	915.55
4	185.00	2	18.75	-	-	2	35.00	7	655.85
3	135.00	1	25.00	-	-	-	-	1	15.00
4	195.00	1	27.50	1	153.47	2	43.50	8	213.18
7	217.50	12	97.50	-	-	-	-	2	54.15
5	430.00	4	45.00	-	-	3	110.00	11	459.92
3	137.50	1	27.50	-	-	4	95.00	7	311.25
2	87.50	1	32.50	-	-	-	-	4	269.51
2	87.50	3	67.50	-	-	7	85.00	5	190.00
5	227.50	2	22.50	-	-	2	40.00	2	54.00
-	-	2	55.00	-	-	1	35.00	2	43.00
12	610.00	4	42.50	-	-	22	460.25	23	571.49
-	-	5	55.00	2	37.50	-	-	3	55.60
12	445.00	24	203.50	1	75.00	2	25.00	10	155.70
13	435.00	31	275.00	1	25.00	4	102.50	15	241.78



TUMOR CENTERS AS OF FEBRUARY 1, 1950
SHOWING LOCATION AND DISTANCE BETWEEN CENTERS

DIAGNOSTIC ✕
DETECTION ○
TREATMENT ▢

CHART III

SPECIMENS EXAMINED UNDER FLORIDA STATE BOARD OF HEALTH CANCER CONTROL PROGRAM, 1947-1949

Year	Examined	Malignant	Per Cent	Non-Malignant
1947	304	118	39.0	184
1948	973	336	35.0	637
1949	1149	395	34.0	754
Total	2426	849	35.0	1575

CHART IV

BIOPSY EXAMINATIONS SUBMITTED BY MONTH, 1947-1949

MONTH	Total Number Examinations		
	1947	1948	1949
January	—	40	116
February	—	47	76
March	3	53	120
April	15	50	96
May	32	83	87
June	32	64	85
July	43	105	109
August	28	118	89
September	24	89	99
October	33	119	93
November	41	91	84
December	53	114	95
TOTALS	304	973	1,149

CHART V

CANCER CLINIC ACTIVITY REPORT FOR 1949

Number of:	Alachua	Duval	Escambia	Hillsborough	Marion	Palm Beach	Pinellas
Patients Reg.	262	415	486	327	39	199	76
Clinic Sessions	24	51	52	44	24	49	16
MD's Present	47	301	273	392	64	326	116
Patients Ex. (New)	131	415	395	326	39	199	55
(Follow-up)	134	1597	65	562	45	337	32
Medical Confs.	6	48	47	21	8	48	16
MD's Present	25	1405	370	340	103	590	116
Cases Reviewed	8	184	404	103	15	93	79

CHART VI

FLORIDA STATE-AID CANCER CASES BY TYPE OF SERVICE AND AVERAGE COST PER CASE FOR 1948 AND 1949

	TOTAL		HOSPITAL			SURGERY		X-RAY Rx		Radium		OTHER (Includes X-Ray Diag. & Biopsy)	
Year	Cases	Cost	Cases	Days	Cost	Cases	Cost	Cases	Cost	Cases	Cost	Cases	Cost
1948	1074	150,751.32	509	5718	70,944.94	311	25,386.50	657	35,122.25	94	8,149.74	472	11,147.89
1949	1176	124,495.63	556	4700	51,154.16	216	15,457.50	442	23,408.00	60	4,736.37	1072	29,738.90
1948 Avg		140.36		11.2	139.38		81.63		53.46		86.70		23.62
1949 Avg.		105.86		8.4	92.01		71.56		52.95		78.94		27.74

CHART VII

NUMBER AND PERCENTAGE DISTRIBUTION OF CASES OF CANCER AND OTHER MALIGNANT TUMORS ACCORDING TO SITE, BY RACE AND SEX FLORIDA STATE-AID, 1949

SITE	TOTAL		WHITE				COLORED			
			MALE		FEMALE		MALE		FEMALE	
	No	%	No	%	No	%	No	%	No	%
Buccal Cavity	22	3.4	12	54.5	3	13.6	3	13.6	4	18.2
Total Digestive Organs	29	4.4	16	55.2	8	27.6	4	13.8	1	3.4
Stomach	13	2.0	4	30.8	2	15.4	6	46.2	1	7.7
Respiratory System	30	4.6	19	63.3	2	6.7	4	13.3	5	16.7
Total Genital	32	4.9	12	37.5	13	40.6	7	21.9		
Uterus & Cervix	117	17.9	3	2.6	89	76.1	2	1.7	23	19.6
Urinary System	16	2.5	8	50.0	7	43.8	1	6.2		
Breast	72	11.0	2	2.8	48	66.6	1	1.4	21	29.2
Skin	303	46.4	198	65.3	92	30.4	8	2.6	5	1.7
Other	19	2.9	11	57.8	5	26.3	1	5.2	2	10.5
TOTAL	653	100.0	285	43.6	269	41.2	37	57.0	62	9.5

CHART VIII

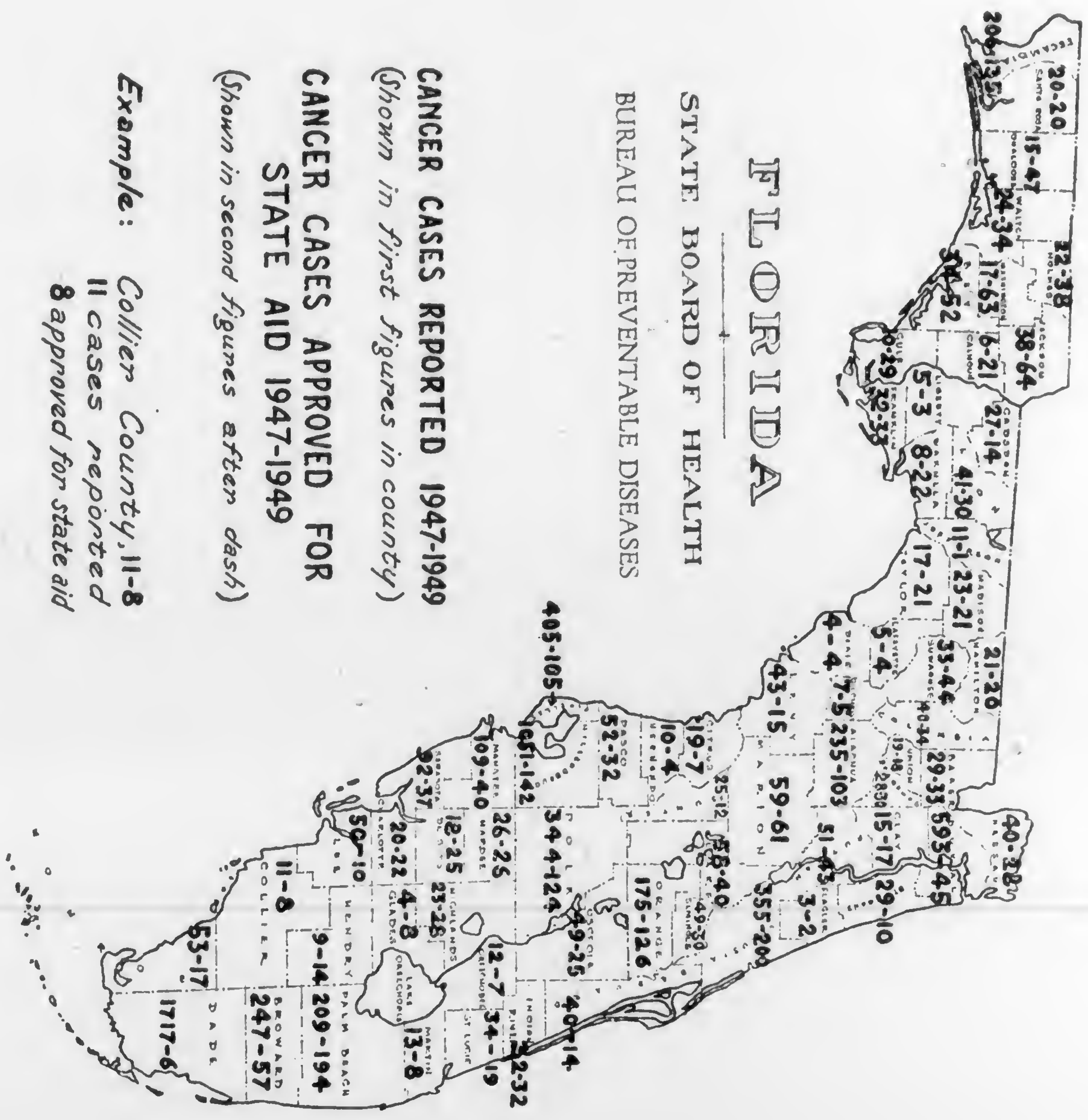
NUMBER AND PERCENTAGE DISTRIBUTION OF CASES APPROVED FOR STATE-AID ACCORDING TO STATUS, BY RACE AND SEX FLORIDA, 1948-1949

1949

STATUS	TOTAL		WHITE				COLORED			
			MALE		FEMALE		MALE		FEMALE	
	No	%	No	%	No	%	No	%	No	%
Cancer and other malignant tumors	653	57.1	285	43.6	269	41.2	37	5.7	62	9.5
No malignancy	310	27.1	87	28.1	161	51.9	18	5.8	44	14.2
Incomplete information	181	15.8	64	35.4	77	42.5	14	7.7	26	14.4
TOTAL	1144	100.0	436	38.1	507	44.3	69	6.0	132	11.5

1948

STATUS	TOTAL		WHITE				COLORED			
			MALE		FEMALE		MALE		FEMALE	
	No	%	No	%	No	%	No	%	No	%
Cancer and other malignant tumors	776	51.6	253	32.6	341	44.0	56	7.2	126	16.2
No Malignancy	298	19.8	62	20.8	162	54.4	24	8.0	50	16.8
Incomplete information	429	28.5	139	32.4	209	48.7	21	4.9	60	14.0
TOTAL	1503	100.0	454	30.2	712	47.4	101	6.7	236	15.7



FLORIDA

STATE BOARD OF HEALTH

BUREAU OF PREVENTABLE DISEASES

CANCER CASES REPORTED 1947-1949
(Shown in first figures in county)

CANCER CASES APPROVED FOR STATE AID 1947-1949
(Shown in second figures after dash)

Example: Collier County, 11-8
11 cases reported
8 approved for state aid

NUMBER OF VENEREAL DISEASE CASES REPORTED IN FLORIDA BY DISEASES AND YEAR, 1945-1949

YEAR	SYPHILIS	GONORRHEA	CHANCROID	GRANULOMA INGUINALE	LYMPHOPATHIA VENEREUM
1945	16,546	18,088	722	244	197
1946	16,067	18,548	818	257	176
1947	16,653	20,160	745	271	216
1948	15,395	18,820	388	773	197
1949	12,363	15,388	343	827	127

(Out of State Cases Excluded)

Total Number of Syphilis Cases Reported by Stage of Infection, Pregnancy Status, Race and Sex, Source of Reference, Age Groups and the Number and Percentage of Cases Admitted to the Rapid Treatment Center by Counties, Florida, 1949.

COUNTY	STAGE OF INFECTION						PREGNANCY	RACE AND SEX				SOURCE OF REPORT				AGE GROUPS										Admissions to R.T.C.	
								White		Colored																	
	TOTAL	PRIMARY	SECONDARY	E. LATENT	L. LATENT	CONGENITAL		MALE	FEMALE	MALE	FEMALE	CLINIC	PRIV. M.D.	HOSPITALS	OTHER	- 1	1 - 4	5 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 & Over	NOT STATED	NUMBER	PERCENT
TOTAL	12,405	1,077	1,297	4,317	4,731	483	897	1,437	1,420	3,946	5,602	6,396	5,339	366	304	17	62	294	3,598	3,395	2,231	1,303	600	330	540	5,949	48.0
Alachua	155	10	18	58	60	9	40	27	15	28	85	115	37	2	1	—	1	5	67	41	21	7	5	2	6	101	65.2
Baker	28	7	8	3	10	—	5	2	1	11	11	24	4	—	—	—		1	13	6	4	3	1	—	—	16	57.1
Bay	156	36	16	59	39	6	6	29	33	32	62	76	76	1	—		1	6	61	41	25	11	9	—	2	87	55.8
Bradford	29	1	7	11	8	2	3	2	12	6	9	26	2	—	1	—	1	1	10	6	7	3	—	1	—	27	93.1
Brevard	113	7	6	35	64	1	4	7	2	38	66	38	73	1	1	—	—	—	29	31	27	12	8	3	—	68	60.2
Broward	492	35	62	207	165	23	39	37	13	148	264	162	298	24	8	3	2	8	157	139	98	46	22	7	10	190	38.6
Calhoun	21	—	5	5	8	3	—	6	4	4	7	17	4	—	—	—	—	1	7	4	5	3	1	—	—	17	81.0
Charlotte	17	2	1	8	6	—	1	1	8	7	1	2	15	—	—	—	—	—	6	1	4	1	1	2	2	9	52.9
Citrus	41	—	2	26	15	1	5	2	9	11	22	40	4	—	—	—	—	1	21	6	8	3	4	1	—	17	38.6
Clay	22	1	6	10	3	2	—	4	4	7	7	13	8	1	—	—	1	—	7	9	3	—	1	—	1	25	113.6
Collier	14	1	3	6	3	1	2	1	1	4	8	2	12	—	—	—	—	—	7	2	2	1	—	1	1	5	35.7
Columbia	56	2	4	11	29	7	5	8	10	22	16	32	16	2	6	—	—	3	13	16	10	6	5	2	1	36	28.6
Dade	2,465	301	186	966	965	47	112	388	336	694	1,047	1,034	1,393	14	24	2	5	24	531	738	516	300	128	64	107	63	2.6
DeSoto	62	4	9	24	20	5	5	7	3	20	32	32	28	1	1	—	1	5	14	15	13	6	3	2	3	62	100.0
Dixie	25	2	—	5	17	1	2	1	7	3	14	25	—	—	—	—	—	2	4	8	8	—	1	1	1	6	24.0
Duval	1,595	171	171	693	524	36	162	151	202	449	793	852	720	16	7	3	6	13	491	459	263	166	75	26	93	994	62.3
Escambia	510	37	84	220	154	15	22	47	53	172	233	375	127	3	5	2	3	6	160	166	99	51	10	7	6	412	80.8
Flagler	45	5	9	20	11	—	1	1	2	25	17	21	24	—	—	—	—	—	13	11	8	5	4	3	1	37	82.2
Franklin	33	1	2	10	18	2	2	3	5	10	15	22	11	—	—	—	—	1	12	5	9	5	1	—	—	21	63.6
Gadsden (Ex.)	145	10	25	65	39	6	15	5	9	46	85	129	16	—	—	—	1	5	77	23	21	5	2	1	10	116	80.0
State Hospital	93	—	—	9	83	1	—	25	10	33	25	—	—	93	—	—	—	—	8	12	19	31	13	7	3	—	—
Gilchrist	5	—	—	2	3	—	—	1	1	1	2	2	3	—	—	—	—	—	—	1	1	2	1	—	—	1	20.0
Glades	10	—	1	6	3	—	2	—	—	3	7	9	1	—	—	—	—	—	4	2	2	—	—	1	1	16	160.0
Gulf	23	1	3	9	9	1	1	3	3	4	13	12	11	—	—	—	—	1	4	10	6	1	1	—	—	17	73.9
Hamilton	39	5	3	19	11	1	6	1	3	12	23	34	5	—	—	1	—	1	15	12	8	1	1	—	—	22	56.4
Hardee	16	—	—	5	9	2	4	2	3	6	5	10	5	—	1	—	1	1	3	5	3	1	—	—	2	10	62.5
Hendry	42	2	7	16	16	1	1	—	3	14	25	28	14	—	—	—	1	—	12	14	9	5	—	—	1	42	100.0
Hernando	11	—	5	3	3	—	2	—	1	4	6	8	2	—	1	—	—	—	5	4	1	1	—	—	—	11	100.0
Highlands	111	14	15	42	39	1	12	4	14	40	53	33	77	—	1	—	—	3	24	39	17	15	5	4	4	55	49.5
Hillsborough	956	91	89	332	424	20	63	158	148	304	346	462	401	90	3	1	3	10	266	245	183	118	62	41	27	456	47.7
Holmes	7	—	2	1	4	—	—	6	1	—	—	5	1	—	1	—	—	—	2	1	2	2	—	—	—	8	114.3
Indian River	67	4	3	23	35	2	2	7	2	36	22	40	26	—	1	—	1	1	18	16	15	7	2	3	4	48	71.6
Jackson	92	8	6	28	22	28	11	11	6	36	39	69	10	—	13	3	3	19	37	17	6	—	—	4	3	55	59.8
Jefferson	24	3	8	12	1	—	6	1	2	5	16	15	9	—	—	—	—	—	15	6	—	2	—	—	1	14	58.3

Total Number of Syphilis Cases Reported by Stage of Infection, Pregnancy Status, Race and Sex, Source of Reference, Age Groups and the Number and Percentage of Cases Admitted to the Rapid Treatment Center by Counties, Florida, 1949. (Cont.)

COUNTY	STAGE OF INFECTION						PREGNANCY	RACE AND SEX				SOURCE OF REPORT				AGE GROUPS										Admissions to R.T.C.	
								WHITE		COLORED																	
	TOTAL	PRIMARY	SECONDARY	E. LATENT	L. LATENT	CONGENITAL		MALE	FEMALE	MALE	FEMALE	CLINIC	PRIV. M.D.	HOSPITALS	OTHER	- 1	1 - 4	5 -14	15-24	25-34	35-44	45-54	55-64	65 & Over	Not Stated	NUMBER	PERCENT
Lafayette	8	—	—	4	4	—	1	—	—	3	5	8	—	—	—	—	—	—	2	1	3	—	2	—	—	6	75.0
Lake	134	6	17	54	55	2	9	15	10	48	61	52	80	—	2	—	1	3	39	38	22	14	8	6	3	76	56.7
Lee	85	2	20	32	26	5	4	7	14	23	41	28	54	1	2	—	1	4	28	17	17	8	2	1	7	27	31.8
Leon	276	29	40	117	71	19	4	49	19	101	107	142	81	1	52	2	1	17	91	71	37	14	11	3	29	125	45.3
Levy	102	6	7	35	30	24	8	1	3	36	62	88	14	—	—	2	2	20	34	19	12	4	—	3	6	112	109.8
Liberty	6	—	—	1	5	—	—	1	2	3	—	6	—	—	—	—	—	—	1	2	1	1	1	—	1	7	116.7
Madison	63	4	8	27	17	7	19	3	6	14	40	41	22	—	—	1	4	1	28	15	10	3	—	1	—	40	63.5
Manatee	116	7	12	52	40	5	12	6	8	34	68	70	45	—	1	2	1	3	38	29	15	10	6	5	7	73	62.9
Marion	164	14	44	46	56	4	11	10	6	66	82	101	59	2	2	2	1	2	75	31	23	18	7	—	5	112	68.3
Martin	32	2	7	12	11	—	—	2	4	7	19	24	8	—	—	—	—	—	8	12	6	4	1	1	—	22	68.8
Monroe	53	2	2	19	22	8	2	9	16	12	16	31	19	—	3	—	1	7	7	9	11	4	3	—	11	15	28.3
Nassau	19	4	3	8	3	1	2	2	4	5	8	12	7	—	—	1	—	—	6	3	2	4	1	—	2	12	63.2
Okaloosa	39	3	7	21	7	1	3	6	10	5	18	30	8	—	1	—	—	—	17	13	5	3	1	—	—	33	84.6
Okeechobee	23	1	3	13	3	3	6	—	1	7	15	16	7	—	—	—	—	3	10	5	5	—	—	—	—	20	87.0
Orange	302	15	23	113	141	10	19	29	22	108	143	154	143	2	3	3	1	5	68	107	58	34	13	6	7	201	66.6
Osceola	23	—	2	8	11	2	4	2	4	7	10	13	9	1	—	—	—	—	9	3	4	2	1	3	1	20	87.0
Palm Beach	646	52	86	275	218	15	57	34	50	265	297	408	235	1	2	2	2	15	215	192	112	58	22	12	16	519	80.3
Pasco	64	1	10	21	26	6	3	11	9	22	22	40	22	1	1	—	2	2	13	23	9	10	3	1	1	48	75.0
Pinellas	569	24	31	203	279	32	42	106	96	143	224	252	283	32	2	1	1	24	134	126	87	74	46	47	29	241	42.4
Polk	729	60	69	222	324	54	36	62	71	258	338	364	301	62	2	5	6	39	187	157	148	68	38	24	57	473	64.9
Putnam	183	13	22	64	79	5	15	9	14	67	93	106	72	1	4	1	—	5	66	40	26	21	10	8	6	124	67.8
St. Johns	101	5	9	56	28	3	7	3	4	42	52	73	25	2	1	—	—	—	36	34	8	7	6	4	6	55	54.5
St. Lucie	125	24	17	39	37	8	22	3	6	43	73	81	44	—	—	4	—	1	43	40	19	12	2	—	4	71	56.8
Santa Rosa	22	1	1	7	13	—	4	3	8	4	7	16	6	—	—	—	—	—	9	4	6	3	—	—	—	18	81.8
Sarasota	122	12	8	55	47	—	4	13	11	31	67	54	66	1	1	—	—	—	23	43	29	11	7	3	6	22	18.0
Seminole	201	8	16	66	104	7	22	7	8	83	103	48	153	—	—	1	—	4	62	51	28	25	4	2	24	79	39.3
Sumter	60	1	5	24	28	2	4	4	6	19	31	37	23	—	—	—	—	2	12	16	11	10	6	2	1	30	50.0
Suwannee	87	4	23	21	20	19	11	6	1	34	46	67	19	1	—	2	2	14	24	18	11	10	3	1	2	27	31.0
Taylor	34	1	2	14	13	4	6	1	6	12	15	27	7	—	—	1	—	—	16	6	5	—	3	1	2	25	73.5
Union (Ex.)	22	1	3	10	8	—	2	5	5	2	10	18	2	1	1	—	—	—	9	7	2	2	1	—	1	16	72.7
State Prison	140	1	—	112	26	1	—	35	3	80	22	—	—	—	40	—	—	—	29	50	29	17	4	1	10	—	—
Volusia	238	9	26	83	114	6	15	22	13	99	104	168	69	—	1	1	2	2	73	74	32	29	10	10	5	193	81.1
Wakulla	7	—	—	2	5	—	—	—	1	5	1	—	—	—	—	—	—	—	1	2	1	—	2	1	—	8	114.3
Walton	21	—	5	7	8	1	1	5	6	3	7	17	4	—	—	—	1	—	7	6	3	3	—	1	—	8	38.1
Washington	24	1	2	9	7	5	—	1	1	6	16	24	—	—	—	1	2	3	11	2	3	1	—	—	1	27	112.5
Out of State	42	3	1	13	25	—	1	17	8	14	3	9	19	6	8	—	—	—	5	15	8	4	10	—	—	—	—

REPORT OF IN-PATIENT CARE — SUMMARY

Provided Under USPHS National Defense Funds

Melbourne, Fla.

	SYPHILIS							Not in Combination with Syphilis				
	Primary and Secondary	Early Latent	Late or Late Latent	Pregnancy	Congenital	C N S (Asymp. Meng.)	Total Syphilis	Gonorrhea	Other Venereal Diseases	Post Rx. Obsvr.	No Venereal Diseases	Total Patients
Previous treatment	52	549	1,102	——	63	224	1,990	4	26	46	——	2,066
No previous treatment	883	1,297	657	——	293	299	3,429	61	279	——	592	4,361
Relapses	4	196	119	——	33	48	400	3	54	—	——	—
Reinfections	79	50	—	——	—	—	129	9	13	2	——	610
Completed course treatment	1,043	2,075	1,868	——	388	568	5,942	78	368	——	——	6,388
Total patient days	10,494	20,733	19,043	——	4,900	7,521	62,691	408	4,997	——	——	68,096
Others	2	3	6	——	1	4	16	—	—	48	576	640
Total days, all patients subtracted	10,507	20,739	19,067	——	4,904	7,533	62,750	408	4,997	193	4,609	72,957
Total admissions for 1949	1,018	2,092	1,878	——	389	571	5,948	77	372	48	592	7,037

Table 3. TOTAL NEW ADMISSIONS

Color	MALE			FEMALE		
	Under 20	20-24	25 & Over	Under 20	20-24	25 & Over
White	73	72	342	109	100	308
Non-white	544	573	1721	931	723	1541

Total: 1004 White
6033 Non-white

7037

Total No. patient days spent in Center, 73,761.

TABLE 1

Reported Cases of Animal Rabies (By Species) Tularemia and Undulant Fever, by County, Florida, 1949

COUNTY	ANIMAL RABIES						TULAREMIA	UNDULANT FEVER
	TOTAL	CATS	DOGS	CATTLE	COONS	SKUNKS		
TOTAL	75	2	66	2	4	1	29	86
Alachua	1					1	1	2
Bay	1			1				2
Bradford								1
Brevard	1				1			
Broward								2
Charlotte								2
Citrus							1	
Columbia	1		1					2
Dade	9		9				2	11
DeSoto							1	
Duval	1		1				5	5
Escambia								1
Flagler								1
Gadsden	4	1	3					
Gulf								2
Hamilton							1	1
Hendry							1	
Hernando	2		2					
Highlands							1	1
Hillsborough	9		8		1		2	16
Holmes								1
Jackson	1			1				2
Jefferson							2	3
Lake	1				1			3
Lee	1		1					1
Leon	9	1	8					
Levy								3
Madison	1		1					2
Marion								1
Nassau								1
Okeechobee								1
Orange	1		1				1	3
Palm Beach	1		1				2	1
Pasco	6		6				1	
Pinellas	2		1		1		3	2
Putnam							1	1
St. Johns	5		5				1	1
St. Lucie	1		1				1	
Santa Rosa								1
Sarasota								2
Sumter								1
Suwannee								6
Union							1	
Volusia	17		17				1	3

TOTALS OF REPORTED CASES OF NOTIFIABLE DISEASES, BY COUNTIES, FLORIDA, 1949

YEAR 1949	State Population 2,517,500 (1949 Estimate)	Cancer	Chancroid	Chickenpox	Conjunctivitis	Diarrhea of the Newborn (Epi.)	Diphtheria	Dysentery, Ameb.	Dysentery, Bac.	Encephalitis, Epi.	Erysipelas	Food Poisoning	German Measles	Gonorrhea	Granuloma Ing.	Hookworm	Influenza	Jaundice, Catarrhal	Jaundice, Hemorrhagic	Leprosy	Lymphopathia Ven.	Malaria
Total This Year		4,394	343	2,841	75	134	206	135	77	10	22	4	43	15,388	827	6,636	258	4	0	0	127	43
Alachua	38,245	109	6	29	2			7	1		1		2	47	23	319	36				1	1
Baker	6,326	10												13	1	29	7					4
Bay	62,200	26	4	4			2		1					230	21							
Bradford	12,400	22	2	1			3		1					75	4	103						
Brevard	22,050	34		8	5				1		1			53	6	3	2				3	2
Broward	59,300	163	4	220	4	3	7	2	1		2			123	22	83					4	1
Calhoun	8,230	6					1								1							
Charlotte	4,690	19	1										1	1	1							
Citrus	5,427	17					3							5	1							
Clay	13,000	9	2	8	1			1	1					22	2	153						
Collier	4,957	9	6											34		3						
Columbia	17,350	33		5		2	5							2	2	6	16				2	3
Dade	355,300	779	139	1,075	16	91	2	30	23	2	3		20	2,957	49	23	39	2			28	2
DeSoto	6,854	13	1				3		1					37	5	112					3	
Dixie	4,926	3												22			3					
Duval	327,600	435	39	90	3	5	25	71	19	1	5	3	4	2,236	145	68	1				17	
Escambia	131,100	148	28	6			29	1	1					1,437	39	396					3	1
Flagler	2,652	3		10										68	1							2
Franklin	9,700	19	1	3			3							82	2	15						5
Gadsden	31,300	25	2	29			4							340	15	64						
Gilchrist	3,466	3														7	11					3
Glades	2,281	4		1										17		104						
Gulf	7,060	7	1			1								57	6	68						1
Hamilton	8,731	17	4											15	6	416						
Hardee	8,585	21		1			5							6	1	2						
Hendry	5,066	2	1	12		1	1							19	4							
Hernando	5,700	8												28								
Highlands	22,100	18	3	1	1		1							137	8	4					3	
Hillsborough	231,100	458	28	378	19	5	30	2	3	2	6		6	1,801	42	629	39	1			23	1
Holmes	14,627	21					4							1	1	172						
Indian River	9,190	23		32	1	1								88	2	2						
Jackson	34,590	34												48	7						1	
Jefferson	11,066	10		2										84		102					1	

TOTALS OF REPORTED CASES OF NOTIFIABLE DISEASES, BY COUNTIES, FLORIDA, 1949 (Continued)

YEAR 1949	2,317,500 State Population (1949 Estimate)	Cancer	Chancroid	Chickenpox	Conjunctivitis	Diarrhea of the Newborn (Epi.)	Diphtheria	Dysentery, Ameb.	Dysentery, Bac.	Encephalitis, Epi.	Erysipelas	Food Poisoning	German Measles	Gonorrhea	Granuloma Ing.	Hookworm	Influenza	Jaundice, Catarrhal	Jaundice, Hemorrhagic	Leprosy	Lymphopathia Ven.	Malaria
Lafayette	3,995	5												1		1						
Lake	28,600	51	1	67	2	1	1	1						49	6	167					1	
Lee	28,700	39					3							29	4							
Leon	38,700	34	4	15			1							1,013	18	618	1	1			3	
Levy	9,902	20	1	16			4		3					20	4	157	74					10
Liberty	3,193	4		19										1		73						
Madison	15,537	18	1	2					1				2	84	4	201						
Manatee	27,400	63	2					1						159	11	225						
Marion	38,500	47	6	1			1		1					268	20	276	1				1	
Martin	6,094	13												5	2		6					
Monroe	23,200	44		25	1			1						326	1	1					1	
Nassau	10,900	18		9										10	3	71						
Okaloosa	18,950	13	1											2		75						
Okeechobee	2,919	8	1											22	2	1						
Orange	100,800	162	5	471		3	6							413	26	163					2	
Osceola	11,000	31		1						1				8	1							
Palm Beach	139,500	188	22	74		1	8			2				348	149						6	
Pasco	13,729	39	1	4			1	1						22	8							
Pinellas	162,500	358	5	32			4	1	1	1		1		536	15	5	1				3	1
Polk	134,000	205	6	25	20	16	15	4	9	1	1		3	420	48	221	7				7	
Putnam	17,837	35	1	11		1	2	2	3		3		3	175	13	20	10				1	2
St. Johns	22,900	27	2	22				2						290	9						1	
St. Lucie	13,800	26	5	6		2	5	1						178	8	84					3	1
Santa Rosa	17,800	19		1		1	4							2		59						
Sarasota	21,800	50												51	6	53						
Seminole	26,500	48	3	11			11						1	159	15	2	4				4	
Sumter	10,417	12		8					1					76		142						
Swannee	18,000	30							2					77	6	1						
Taylor	10,738	11		2			1							4	3	85						1
Union	6,051	11												13	2	111						
Volusia	62,500	215	3	50			7	6	2					471	20	109					3	2
Wakulla	5,059	8		34			1							24	2	50					1	
Walton	13,871	22					1							24	2	776						
Washington	11,889	12	1	16			2		1					23	2	6					1	

TOTALS OF REPORTED CASES OF NOTIFIABLE DISEASES, BY COUNTIES, FLORIDA, 1949 (Continued)

YEAR 1949	Measles	Meningitis, Epi.	Mumps	Ophthalmia Neo.	Pneumonia	Poliomyelitis	Rabies, Animal	Rabies, Human	Salmonella	Scarlet Fever	Smallpox	Streptococcal Inf.	Syphilis	Tetanus	Tuberculosis	Tularemia	Typhoid and Paratyphoid Fever	Typhus Fever	Undulant Fever	Vincent's Ang.	Whooping Cough	Ringworm of The Scalp
Total This Year	3,753	41	1,791	11	686	282	75	0	127	264	0	120	12,363	71	3,198	29	74	123	86	97	191	1
Alachua	61	1	14		12	3	1		3	3		7	155		58	1	2	9		2		
Baker	1				2	1				1			28		7							
Bay	37		2			4	1		2	5			156		67		2	1	2			
Bradford	197		1		1								29		17				1	1		
Brevard	141		20	1	13	1	1		3	1		2	113		21		1	1		6	1	
Broward	74	1	13		8	13			1	5			492	7	69		1	2	2	2	6	
Calhoun													21		13			1				
Charlotte	25		1						1				17		2				2			
Citrus													44		11	1					3	
Clay	99		83		2					5		2	22	1	16							
Collier	8								1	1		1	14		1							
Columbia	14	1			1	2	1					1	56		14		1		2			
Dade	800	3	621	5	300	93	9		20	35		34	2,465	8	433	2	3	3	11	25	46	
DeSoto	36								2				62		8	1				1		
Dixie													25		4			1				
Duval	296	7	59	1	40	9	1		12	39		18	1,595	11	526	5	20	12	5	11	10	
Escambia	29	3	2	1		6			8	10			510	4	100		6	3	1	1	2	
Flagler					6	1							45		2				1		1	
Franklin	3		26						2				33	2	3						2	1
Gadsden	80		2		2	1	4		2			1	238		41		1	10				
Gilchrist												1	5		3		1	1				
Glades	2												10		3							
Gulf		1				1			1	2			23		6				2			
Hamilton	2												39		7	1			1		7	
Hardee	3	4	2							1			16		7							
Hendry	30				19	1			1	1		3	42	1	11	1					1	
Hernando							2						11		2			1				
Highlands	2	1	2			3			1				111	1	20	1	1	1	1		2	
Hillsborough	489	5	235		159	24	9		32	39		16	956	10	235	2	4	13	16	26	19	
Holmes													7		7				1	2		
Indian River	56		7			1			3				67		12		1			6		
Jackson	4	1	1		7	3	1			1		3	92		27			2	2			
Jefferson	80		12										24		1	2		7	3			

TOTALS OF REPORTED CASES OF NOTIFIABLE DISEASES, BY COUNTIES, FLORIDA, 1949 (Continued)

YEAR 1949	Measles	Meningitis, Epi.	Mumps	Ophthalmia Neo.	Pneumonia	Poliomyelitis	Rabies, Animal	Rabies, Human	Salmonella	Scarlet Fever	Smallpox	Streptococcal Inf.	Syphilis	Tetanus	Tuberculosis	Tularemia	Typhoid and Paratyphoid Fever	Typhus Fever	Undulant Fever	Vincent's Ang.	Whooping Cough	Ringworm of The Scalp
Lafayette													8		1			1				
Lake	237		55		8	8	1			4		4	134	1	68			3	3	3	15	
Lee						1	1					1	85		18		1		1			
Leon	24	2	22		14		9		2	9		7	276	1	43		2	3				
Levy	6		6		1	2			1				102		8		1		3		1	
Liberty	3					1							6		2							
Madison	8				2	4	1						63		14			12	2			
Manatee					1	1				1			116		71			2				
Marion	1	2	15			5						2	164		75		2	4	1			
Martin	1												32		9		1					
Monroe	197	1	18			11				2			53	1	32			1				
Nassau	135	2	4		1	2							19		17			2	1			
Okaloosa						5							39		13		1	1				
Okeechobee	14		1		4					1			23		3				1	4		
Orange	32	2	266			10	1		6	14			302		95	1	3	2	3	1	10	
Osceola	3								1				23		11			1				
Palm Beach	17		103	1	1	30	1		1	8			646	8	100	2	3	1	1		49	
Pasco			1				6						64		26	1		1				
Pineallas	14	1	47		5	9	2		6	35		1	569	1	387	3	5	2	2		2	
Polk	207	1	44		52	13				22		7	729	6	147		3	5		2	7	
Putnam	78		3		1	1			3	1		4	183	1	32	1	1	1	1		2	
St. Johns	6		20			1	5		1				101		10	1	1	3	1			
St. Lucie	28	2	3		2	2	1			2			125	1	19	1	1			2		
Santa Rosa	8					2				3			22		8		1	2	1			
Sarasota	3		1			1				1			122	1	51				2			
Seminole	40		3		4	1			1	5		1	201	3	33			1			1	
Sumter	5		38		13				2	2		2	60	1	18				1	2	2	
Suwanee										1			87	1	11		1	3	6			
Taylor	1			1									34		12			1				
Union									1				162		29	1						
Volusia	89		28	1	1	2	17		7	4		2	238		69	1	3	2	3			
Wakulla	27		10		4								7		1						2	
Walton						2							21		5							
Washington						1							24		6							

BUREAU OF LABORATORIES

Albert V. Hardy, M.D., Dr. Ph., Director

Organization

The Bureau of Laboratories includes the Central Laboratory in Jacksonville, and five Regional Laboratories located in Tampa, Miami, Pensacola, Tallahassee and Orlando. There are two affiliated laboratories, located in the Melbourne Hospital and in the Pinellas County Health Department

The Central Laboratory carries responsibility for state-wide activities. The senior professional staff share with the Director the broad supervision of technical services in regional and affiliated laboratories. They also are expected to develop productive investigative studies, which must be a part of every progressive public health laboratory. Broad educational activities designed to improve the quality of all laboratory service available to physicians and people of the State are fostered by the Central Laboratory. Certain technical services are available only in the Jacksonville Laboratory, as for example, complement-fixation, Rh typing and detailed chemical examination of water. Equipment and supplies are procured through it and distributed to the regional laboratories. Furthermore, the "Supply Section" receives, stores and distributes biologicals, and other materials and supplies for other Bureaus and Divisions. Approximately one-fourth of the activities of the Central Laboratory are directed to these state-wide services.

The general diagnostic laboratory services are divided between the Central and the Regional laboratories. The counties most accessible to Jacksonville are served from the former, and the remainder of the state is served from the regional laboratories. There are no rigid boundaries but the divisions are made considering transportation time and the capacity of the laboratory. The physicians and health departments are provided mailing containers bearing the address of the laboratory for their region. This regulates satisfactorily the direction of flow of specimens. Each regional laboratory is being developed as a complete unit, equipped to provide all of the usual public health laboratory services.

The affiliated laboratories differ only in that they provide particular and limited services and are supported by the institution or area obtaining that service. The Melbourne Hospital Laboratory gives those diagnostic services needed by the Rapid Treatment Center, while the Pinellas County Laboratory handles the sanitary bacteriology for that county. Both function as an integrated part of the Bureau of Laboratories.

Personnel

Laboratory personnel include a professional staff, technical workers, non-technical assistants and a clerical group. The professional staff are the bacteriologists, serologists, parasitologists, and chemists and the college graduates being trained for these positions. The technical worker ordinarily joins the Bureau as an inexperienced high school graduate, but in time progress from a laboratory assistant carrying limited responsibility, to the junior and senior technician grades with very substantial responsibilities. (College graduates currently are accepting appointments in these classifications). The non-technical assistants aid in preparing culture media, clean and sterilize glassware, assemble mailing containers, handle supplies, and perform other varied duties. The clerical group has the responsibility of keeping records, mailing reports of examinations and handling the general office work. As in every team activity, all are essential, and efficient performance calls for balance and cooperation.

The post war period was one of instability and change; laboratory personnel came and went. This was a difficult period. During the past two years, a feeling of permanence and stability has developed. The present status of personnel is summarized and is compared with that of January, 1948.

For the Bureau as a whole, the total persons employed has remained notably constant, 115 at the beginning of 1948 and 113 two years later. (Within this period the examinations performed by the Central and Regional Laboratories has increased by 38 per cent). There has been a gradual shift from the Central to the Regional Laboratories. Those working in the former, decreased from 69 to 57, while those in the regional laboratories increased from 46 to 55. Several in the Central Laboratory give attention to providing service to the state as a whole or to the central offices of the Board of Health. The distribution of personnel is closely in line with the distribution of services.

The clerical group has been reduced from a total of 18 to 15; the smaller number are carrying the increased volume of work. The non-technical assistants numbered 38 at the beginning of the two year period and 39 at its termination. The number of technical workers has remained unchanged, a total of 21, but with at present two less technical assistants and two more experienced technicians. These are very essential workers when identical tests are being performed on numerous specimens.

The quality of laboratory service is dependent primarily on the qualifications and abilities of its professional staff. In numbers, including trainees, these have decreased from 38 to 36. However, two years ago there were only 24 with professional appointments as bacteriologist, serologist, parasitologist or chemist while 14 were trainees. Currently there are 33 with professional appointments and only three trainees. Furthermore, exclusive of the Director and Assistant Director, at the beginning of 1948 only six in the Bureau held a Master's degree; two years later there are 15 with this degree, and an additional five has secure plans which should lead to this goal within the next biennium. The attainment of advanced academic degrees is a fair symbol of the advancement in training and ability of the professional staff.

The program of selecting able young graduates of Florida's colleges and providing opportunities for training, in cooperation with the University of Florida and other institutions, has been sound. Improvements and advancement through training must be continued. The high potential abilities of professional workers must be still further developed. The Public Health Service, in the Laboratory Division of the Communicable Disease Center, Atlanta, offers short courses of intensive training for professional workers employed in public health laboratories. Knowledge and skills are advanced, but even more the workers are stimulated and return with an enthusiasm which is refreshing. Future plans must provide for more personnel to have the advantage of this training under the leading scientists and able teachers in Atlanta. The other need in training applies to a very small number only. The laboratory system should have some who have advanced from their Masters to a Doctorate degree. Candidates of excellent promise are at hand; it is hoped that opportunities for this next step in training may become available without prolonged delay.

Guests with an appraising objective view who have visited the Board's laboratories agree that the laboratory staff is one of high competence—and an exceptionally harmonious, hard working, and cooperative team.

Diagnostic Services

The examinations performed in each and in all laboratories in 1949 and in three preceding years are given in Table I. The growth in volume of work has continued through 1949. The total services exceed those of any previous year. Over two million examinations were performed on over one million specimens submitted by health departments and physicians. During the four years, 1946-1949, there has been a 66 percent increase in examinations performed. The central and each regional laboratory has had a progressive but variable increase in this period. There was nearly a five fold increase in the Tallahassee regional laboratory and almost a four fold increase in Pensacola. The volume in Miami approximately doubled and in Tampa, it increased by over one-half. The Jacksonville laboratory held its increase to a little less than one-third. Within the four years one regional laboratory in Orlando has been added and the Melbourne Hospital and Pinellas County Laboratories have become affiliated with the Bureau.

There was a moderate total increase in examinations performed in 1949 as compared with the preceding year. The increase was substantial (15 to 21 percent) in the Tallahassee, Pensacola and Miami Laboratories. The limited increase in Tampa and Jacksonville is explained by the growth of the new Orlando Regional Laboratory which is now serving areas previously submitting specimens to Jacksonville and Tampa.

The number of examinations by laboratory and by type of test shown in Table II. There was a sharp increase in examinations for tuberculosis and of dairy products submitted for bacteriological and chemical tests. There was some decline in tests for gonorrhea and a more marked decline in animal heads examined for rabies. Other than these, the distribution of work compares closely with that of the preceding year.

The types of specimens examined with findings are given in Table III. As in the preceding year almost 100,000 specimens gave a positive reaction to the serological test for syphilis. There was an increase in specimens positive for *M. tuberculosis*, which is particularly noteworthy since the Orlando Sanitorium early in the year began to perform its own bacteriological examinations. A more careful follow-up of typhoid carriers resulted in an increase in the isolations of *S. typhosa*. The examinations for intestinal parasites increased as did the positive findings. In contrast, the specimens positive by darkfield for *T. pallidum* (syphilis) and those positive for *C. diphteriae* declined notably as would be expected with the reduction in prevalence of primary syphilis and diphtheria.

Many special tests are performed which are not reported in the table, as for example: In the Jacksonville laboratory all milk samples with findings suggesting that water might have been added are examined by special procedures. As a result samples from 54 supplies were found to contain added water varying from 3 to 34.5 per cent and averaging 13.5 per cent.

Research

A series of studies are under way or have been completed. It is of particular importance in a public health laboratory to ascertain the best procedures for handling volume work with high technical reliability. The relative efficacy of various available culture media in examining for *M. tuberculosis, C. diphtheriae, N. gonorrhea* and *Salmonellae* (other than typhosa) has been studied comparatively. The findings in one are illustrative. Five culture media designed for the identification of *M. tuberculosis* have received favorable reports. Selected for routine use was the one which, from the literature and from its wide usage, one would judge to be as good as the best. Careful comparative studies were initiated, however. Specimens from patients believed to be discharging very few organisms were obtained. The various media were inoculated by identical technics so any difference in findings would be related to variations in the culture media. Positives were obtained on all. Considered alone each medium could be regarded as satisfactory. However, the total numbers of positives varied significantly. Three of the five media were found to give better results than the one selected for use by this and many other laboratories. The best increased the number of positives by 20 percent as compared with the medium in use. This superior preparation was no more costly or difficult to use. On the basis of findings it was adopted for routine use. The current emphasis in tuberculosis is on the diagnosis of minimal infections. The culture medium previously employed would have missed one positive sputum in each five which now will be found culturally. Without adding time to the daily routine, the reliability of findings has been substantially improved by this relatively simple comparative study. The effort expended in this investigation obviously was very productive.

The study of cultural proceedings for the isolation of *Salmonellae* from animal feces extended further. No preparation currently available was effective in preventing overgrowth by the proteus organisms which commonly are present in animal feces. Observations led to an entirely original modification of medium which by comparison with the unmodified preparations yielded an increase in positive findings of 38 percent.

The study of cultural procedures for *C. Diphtheria* and *N. Gonorrhea* were instructive also. Even though these did not lead to any immediate modification of procedures, they did keep before each worker the stimulating question as to whether methods employed were the best which were available or could be devised.

The second type of study had to do with the development or modification of rapid or simplified techniques. Two of these were in the field of enteric bacteriology; one was in agglutination tests. In the latter a rapid slide agglutination test for tularemia was devised. This was reported in a paper read at the A.P.H.A. meeting in New York and will be published. (A Rapid Slide Agglutination Test for Tularemia, Nathan J. Schneider and Albert V. Hardy).

A new "Ring Test" for the detection of Brucellosis in cows has been described and is being given some attention in this country. This was studied intensively over a six months period in the State Board of Health's laboratories. Findings were compared with those obtained by blood agglutination and by the less widely used whey agglutination tests. The simplicity of the new procedure commends the test, and findings suggested it has high potential practical value. These observations were reported also at the A.P.H.A meeting in New York and will be the first publication on the subject in public health literature. (The Brucella Ring Test, Addie Hamilton and Albert V. Hardy, American Journal of Public Health, March, 1950).

The most extensive investigation has been in Salmonellosis. Here there was an approach to problems in epidemiology. The infection has been identified in dogs but the relative importance

of domestic pets as a source of these infections in humans has not been explored adequately. There has been substantial progress in this study and the problem appears of greater importance than was suspected heretofore. Unexpectedly it led to an investigation of the cause of acute diarrheal disease of dogs —a common epidemic ailment of animals closely associated in kennels. The studies of Salmonellosis are being expanded through support from the Armed Services Epidemiological Board with the hope that basic information on epidemiology, prevention and therapy of Salmonella infections may be assembled. One report in this field of work was published within the year (The Public Health Laboratory Diagnosis of Enteric Infections, Mildred Galton, Albert V. Hardy and Roland B. Mitchell, American Journal Tropical Medicine, January, 1950).

The problem of the epidemiology of creeping eruption is being examined further under the general leadership of the State Public Health Veterinarian, and in cooperation with the Divisions of Parasitology and Veterinary Public Health of the Communicable Disease Center, Atlanta, Georgia. Adult hookworm specimens are collected from dogs in the various pounds of the State and these are identified as to species in the laboratory in Jacksonville or Atlanta, Georgia. Data as to relative prevalence of the two varieties of hookworm in dogs, A. Braziliensis (the embryo of which causes creeping eruption) and A. caninum are being accumulated gradually. Experimental studies related to control measures are planned also.

Cooperation with other Medical Laboratories

Late in 1948 it became practicable to initiate an active program designed to improve reliability of serological tests performed in the approximately 100 general medical laboratories doing this work in Florida. In part, this was meeting an obligation since the laws relative to premarital and prepartum serological tests require that the State Board of Health approve laboratories for the performance of these tests. The only reasonable basis for this is an adequate measurement of quality of performance. The evaluation procedures employed have been described. (The Reliability of Serological Examinations as Performed in Medical Laboratories in Florida, Albert V. Hardy, Journal Florida Medical Association, January 1950). It involves distributing test specimens and comparing finding by specific test with those obtained in three control laboratories.

A scoring schedule is used and the quality of performance is indicated by the percentage of total possible score obtained. If more than one test procedure is used these are scored and tabulated separately. Recently the 104 laboratories participating reported 151 series of findings. The observations by date of evaluations are given in Table IV.

The improvement in quality of serological performance is striking. During the first three months, 30 per cent had poor or very poor performance, and an additional 14 per cent had results which were highly unreliable. In the most recent series the results were poor in 5 per cent and very poor in 3 per cent but no laboratory was in the highly unreliable class. Only four of the 12 laboratories with this defective performance participated in the evaluations from their beginning. Also on the first series, 28 per cent had excellent performance, (one third of these were tests performed in the Board of Health Regional Laboratories). Recently, 70 per cent had this high quality of performance.

These results have been attained, in part, by an associated program of group instruction and by individual consultations. The response to these was very favorable. The degree of improvement in the limited period is better than was expected. It gives substance to the hope that all serology in Florida soon will be of excellent quality.

The significance of this cooperative program warrants emphasis. Prior to its initiation almost one half of the blood specimens submitted to hospital and private laboratories were so examined that results were poor to highly unreliable. At present almost all serological tests in these laboratories yield satisfactory to highly reliable findings. An activity which thus improves the quality of serology performed in other laboratories has equal public health value to the performance of many additional tests in our own laboratories. Evaluations, consultations and education consume time and effort, but the expenditure for these is small as compared with the results attained. Moreover, the laboratories participating in the evaluations have been appreciative. The program produced dividends of good will.

There is an increasing interest in developing similar activities in other fields. Studies elsewhere have revealed weaknesses in clinical chemistry as marked as those discovered in serology. Probably the same is true of bacteriology, parasitology

and hematology. The importance of improving practice in all laboratory fields is evident. A cooperative approach and voluntary participation are essential and the assistance of some laboratory as the Central Board of Health Laboratory, is needed.

A future major contribution of public health laboratories may be through making possible a program designed to aid medical laboratories progressively to improve the quality of their work. The high importance of such an activity warrants full cooperation from the Bureau.

Needs and Opportunities

There has been progress. More and better diagnostic laboratory services have been made available, research and special studies have been fruitful and cooperative activities with other laboratories have had a favorable initiation. The proficiency of our personnel has been improved progressively. The need in these is for continuing progress. The maximum value of laboratory service cannot be attained by limiting attention to the laboratory alone. Judgment supported by adequate knowledge in the requesting of tests, and care in the collection and submission of samples are needed. Even more, the physician must be clearly aware of the exact significance of reported laboratory findings. A program to be fully adequate, must give attention to aiding the physicians and others served to utilize the services of the laboratory fully and effectively.

Again the urgent need for adequate laboratory space must be stated. The Orlando laboratory has excellent quarters and those in Pensacola are adequate. Elsewhere there is a need for extensive renovation, the addition of space or the provision of entirely new laboratory buildings.

TABLE 1

TOTAL NUMBER OF EXAMINATIONS PERFORMED BY LABORATORIES, 1946-1949

Laboratories	Year 1946	1947	1948	1949
Jacksonville Central	673,316	808,396	845,957	868,359
Tampa Regional	286.067	336,750	440,172	445,022
Miami Regional	217,950	227,561	364,739	417,908
Pensacola Regional	35.262	56.726	112.486	128,655
Tallahassee Regional	19,828	18.531	76,691	93,435
Orlando Regional			19,727*	50,208
Melbourne Hospital		15.461*	58.776	38,564
Pinellas County			11.700*	21,317
Total	1,232,424	1,463.425	1.930.248	2,063,468

*6 months operation.

TABLE II

EXAMINATIONS PERFORMED BY LABORATORIES, 1949

	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Orlando	Melbourne	St. Petersburg	Totals
Serology									
Syphilis	503.064	310,495	311.809	82,298	49,492	27,809	24,984	22,000	1,309,951
Agglutinations and Related Tests	23.800	7.350	9.565	1,596	1,906	1.617	0	0	45,834
Blood Typings (Rh)	8,053	0	0	0	0	0	0	0	8.053
Diagnostic Bacteriology									
Nose and Throat	7,236	2.557	670	2,862	262	267	0	0	13,854
T. B., Sputum	39,758	3.961	6.731	113	1,670	1.481	0	0	53.717
Other	1,854	0	50	0	100	216	0	0	2.220
G. C., Smear	14,962	22,804	15,951	4,777	5,865	1.927	0	0	66,286
Culture	8,912	11,073	11,626	3,237	2,553	0	0	0	37,401
Enteric	70,314	23.180	2.708	6,491	9,115	7.062	0	0	118,870
Blood Culture	1,012	3	8	0	0	10	0	0	1.033
Food Poisoning	1,155	11	357	18	0	2	0	0	1,543
Rabies	341	166	96	6	0	0	0	0	609
Miscellaneous	19,902	317	571	51	92	80	2.617	8	23,638
Sanitary Bacteriology									
Dairy Products	11,835	25,601	23.211	6,744	9,225	2.468	0	9.158	88.242
Water, Drinking	15.068	5,630	6,767	1,606	3,757	1,604	0	7,655	42,087
Pool and Beach	4,098	1,503	1,732	485	664	1.619	0	953	11,054
Poll. Surveys	35,700	999	9.183	2,641	743	849	0	3.378	53,543
Shellfish	803	0	0	0	0	0	0	0	803
Utensils	0	0	0	0	0	0	0	46	46
Parasitology									
Intestinal Parasites	64,351	26,266	6,932	15,043	7,329	2,603	0	0	122,527
Malaria	2,005	479	128	151	618	17	0	0	3.398
Chemistry									
Blood	7,115	1.722	60	470	0	319	167	0	9,853
Spinal Fluid	4,647	905	1.052	58	44	5	10,734	0	17,445
Urine	4.331	0	90	8	0	59	62	0	4.550
Toxicology	589	0	3,355	0	0	0	0	0	3,944
Water	2.972	0	3.218	0	0	194	0	119	6,503
Other	3,951	0	2,035	0	0	0	0	0	5.986
Veterinary Pub. Health	10.528	0	0	0	0	0	0	0	10,528
Grand Totals	868,359	445.022	417,908	128,655	93,435	50,208	38,564	21.317	2,063,468

TABLE III

SPECIMENS SUBMITTED FOR EXAMINATION BY FINDINGS

EXAMINATION	Number of Specimens				
	Positive One or More Positive Finding	Positive For Finding Indicated	Negative	Unsatis-factory	Total
Serology					
Syphilis	99,827		490,589	11,675	602,091
Agglutination and Related Tests	1,218		9,393	321	10,937
Typhoid		287			
Typhus		496			
Brucellosis		234			
Tularemia		248			
Other		90			
Blood Typings (Rh)					7,131
Diagnostic Bacteriology					
Nose and Throat	515		6,241	12	6,768
C. Diphtheria		194			
Vincent's		191			
Streptococci		95			
H. pertussis		0			
Tuberculosis	3,660		27,316	1,536	32,512
Sputum		3,603	26,238	1,526	
Urine		12	251	2	
Gastric		36	427	5	
Pleural Fluid		3	105	1	
Other		6	295	2	
Gonorrhea—Smears	27,312		33,218	595	61,125
Intracellular Gram negative diplococci		7,067			
Extracellular Gram negative diplococci		1,574			
Trichomonads		1,156			
Yeasts		537			
Vincent's organisms		393			
Many pus cells		21,846			
Gonorrhea—Culture	2,216		28,890	460	31,566
Enteric Infecions	634		24,394	146	25,174
S. typhosa		159			
Other Salmonella		127			
Shigella (Flexner and Sonne)		90			
Blood Culture	32		308	0	340
S. typhosa		0			
Other Salmonellas		3			
Streptococci		3			
Other		29			
Food Poisoning	42		131	0	173
Staphylococci		26			
Salmonella		1			
Other		15			

TABLE III CONTINUED

EXAMINATION	Positive One or More Positive Finding	Positive For Finding Indicated	Negative	Unsatis-factory	Total
Diagnostic Bacteriology, Cont'd.					
Rabies	75		524	29	628
Dog		66	358	17	
Cat		2	107	11	
Fox		0	2	0	
Cow and Horse		2	11	0	
Other		5	43	1	
Miscellaneous	2,981		2,921	63	5,965
Darkfield—T. pallidum		471	930	16	
Chancroid—Ducrey's		111	244	1	
Granuloma—Donovan Bodies		743	520	10	
Gonococcus in Eye		126	272	12	
Other Eye Cultures		56	0	0	
Urine Culture		506	176	5	
Spinal Fluid Culture		40	209	0	
Pleural Fluid Culture		81	79	0	
Other Fluids and Exudates		315	190	5	
Mycological Examinations		109	189	4	
Organisms for Identification		334	6	3	
Other Examinations		89	106	6	
Sanitary Bacteriology					
Dairy Products					*18,326*
Water, Drinking					32,374
Water, Pools and Beaches					4,412
Water, Pollution Surveys					9,610
Shellfish					47
Utensil Swabs					88
Parasitology					
Intestinal Parasites	32,505		82,576	1,566	116,617
Hookworm		21,671			
Ascaris		3,549			
Enterobius		2,901			
Trichuris		686			
Taeniae		16			
Other Helminths		118			
E. histolytica		102			
Non-pathogenic amoebae		7,522			
Flagellates		2,699			
Other		10			
Malaria	12		3,385	181	3,578
P. vivax	2				
P. falciparum	0				
Untyped	9				

BUREAU OF SANITARY ENGINEERING

David B. Lee, Director

Public health engineering in its broadest sense experienced the greatest measure of expansion in the state in 1949 in the field of sanitation of natural waters. Highly significant, and it is felt to be a result of departmental effort in considerable degree, is the material participation in stream and tidal water sanitation activity by two of the state's outstanding industrial groups. The overall interest in natural water pollution is reflected in the inauguration of two programs during the year jointly by the department with the pulp and paper and the pebble phosphate mining industries, respectively, to determine the nature and extent of detrimental conditions, if any, which are created by their operations in waters receiving their industrial wastes.

Paralleling the intensified activity in measuring the sanitary condition of the state's natural waters by collection of factual data which will produce long range results, but which have more immediate benefit, is the continued program of constructing sewage treatment and disposal works by municipalities. Projects were approved during the year which will correct some of the worse conditions.

Environment control, for public health purposes, of urban fringe areas continued as a problem. Leading up to and in regular session of the State Legislature, a rather strong but unsuccessful effort was made to see legislation enacted as a state-wide law carrying provisions whereby local citizenry may vote to organize a political subdivision for the purpose of creating one or all of the services of water supply, sewage disposal and garbage disposal. Some indication of the need is seen in the many public water works projects approved for real estate developments outside of city limits, likewise, the large number of household septic tanks for such. It is felt that effort may better be redirected to promotion of special acts for local legislation with more consideration to public works aspects of the urban fringe problem.

The State Board of Health continues to improve its position to more nearly fulfill its public health engineering responsibilities because of the regional engineers functioning with the organization. There continued on assignment during the year five regional engineers located at vantage points in the state. Their activities, while applied rather thinly because of extensive areas covered, meet to some degree a long-felt need; and it is hoped to make this effort more effective through further assignment of engineering personnel thereto whenever resources are made available for this need.

PUBLIC WATER SUPPLY AND TREATMENT

New and Proposed Construction

Those projects for public water supply and treatment facilities and improvements covered by plans and specifications submitted to and approved by the department during 1947 are listed in Table I. There were 63 of these projects having an estimated aggregate cost of $2,574,920. The continued downward trend in dollar volume of projects approved is seen in comparing 1949 with the previous year. Interesting enough, however, is the fact that the volume of construction represented by the approved plans is comprised of a considerably larger number of projects, there having been a 56 per cent increase from this standpoint over the previous year. In part this means that a greater number of towns and cities instigated improvements to their respective water supplies, but it also reflects the fact to some extent that municipalities did not in many instances extend water utilities to housing developments where relatively many public water supply systems were approved for construction in real estate subdivisions.

Important highlights in the water works field included placing in operation the new municipal filtration plants at Orlando and Quincy. At Bradenton units were placed in operation which double plant capacity for softening-color control and filtration. At Gainesville, where a new filtration plant was placed in service in 1948, the municipality commenced application of limited concentrations of sodium fluoride at the water plant on October 31, 1949, as a measure designed to control dental caries among children. Control procedure for the projects which were the first of the kind in the state was outlined and approved by the department.

TABLE I

PUBLIC WATER SUPPLY PROJECTS APPROVED IN 1949

MUNICIPALITY	PROJECT	$EST. COST
Glynlea Park S/D (Duval)	Water supply system	50,000.00**
So. Peninsula Water Co. (Volusia)	Water main extensions	44,761.00**
Winter Haven	Water works improvements	204,000.00*
Ft. Lauderdale	Water main extensions	*
Winter Park	Water works improvements	42,250.00*
Panama City	Ground reservoir	33,000.00**
Miami	S. W. Miami water supply system	165,000.00*
Miami	S. W. Miami chlorination system	*
Deerfield Beach	Subaqueous water main	18,500.00*
Hallandale	Water plant and system	500,000.00
Haven Gardens S/D (Duval)	Water system	5,000.00**
Lakeland	Water main extensions	15,000.00*
Macclenny	Water distribution system	50 000.00*
San Jose Estates S/D (Duval)	Water system	8,000.00**
Murray Hill Gardens S/D (Duval)	Water system	15,000.00**
Ribault Hills S/D (Duval)	Water system	10,000.00**
North Miami Beach	Distribution System	75,000.00*
Pirates Cove & Timuquana Manor.	Water main extensions	7,500.00*
Miami	Construction misc. structures..	71,000.00*
Warrington	New water well	17,5000.00*
Orlando	Rehabilitation of existing filters	85,000.00**
Cocoa	Water main extensions	10,000.00
Lincoln Gardens S/D (Dade)	Unit 2 Tract 3 water system	5,000.00*
Ft. Lauderdale	Water main extensions	31,000.00*
Ft. Lauderdale	Gravimetric feeders for lime	4,000.00*
Ft. Lauderdale	500,000-Gal. elevated tank and main ext.	110,000.00*
Curtiss Park Dev Co. Opa Locka	Distribution system	5,000.00*
Highland Park	Alterations & repairs to elev. tank	5,000.00*
Daytona Beach	Additional well field	90,000.00*
South Ponte Vedra Beach	Water system	2,000.00**
Lincoln Gardens S/D (Dade)	Unit 1 Tract 2 water system	6,500.00*
Haven Gardens S/D (Duval)	Water system	8,000.00**
Herman Housing Unit 1 (Dade)	Water system	5,000.00* 5,000.00*
Herman Housing Unit 2 (Dade)	Water system	152,000.00* 4,000.00*
Miami Springs	Water main extensions	
Pompano Beach	Water works improvements	16,000.00**
Lauderdale Surf & Yacht Estates	Water mains	10,000.00**
Wildwood	New deep well and pump	2,763.00**
Odessa S/D (Duval)	Main extensions	6,500.00*
Whitaker Bungalows, Inc.	Water system	8,700.00*
Westview S/D (Leon)	Water system	
Ocala	Water treatment plant	270,000.00*
Hialeah	Ground storage and additional pumping facilities	12,000.00*
Ft. Lauderdale	Main extensions	12,000.00*

TABLE I (Continued)

PUBLIC WATER SUPPLY PROJECTS APPROVED IN 1949

MUNCIPALITY		$ EST. COST
St. Petersburg	24" water main extension	40,000.00**
Riverwood Park S/D (Duval)	Water system	8,000.00*
Lakewood S/D (Duval)	New water plant	75,000.00*
Live Oak Manor S/D (Duval)	Water system	6,000.00**
Roosevelt Gardens S/D (Duval)	Distribution system	10,525.00**
Herman Housing No. 3 (Dade)	Water system	5,000.00*
Sunset Construction Co. (Miami)	New water system	7,000.00*
Lake Forest S/D (Duval)	Main extensions	8,500.00**
Baldwin	Water system	75,000.00
Ormond	Water plant additions	15,000.00*
Perrine Bungalows, Inc.	Water system	7,000.00*
Haven Gardens	Extensions	2,000.00**
Melbourne	Water plant improvements and extensions	140,000.00
North Miami Beach	250,000-Gal. elevated tank	25,000.00*
Lake Park	100,000-Gal. elevated tank	15,000.00*
Fleetwood S/D (Duval)	Distribution system	2,925.00*
Riviera Beach	Water main extensions	10,000.00*
Junior Beach	60,000-Gal. elevated tank	15,000.00*
Phillips Hwy. Tourist Court (Duval)	Water system	2,000.00*
Hollywood	Salt well and pumping station	8,000.00*
Ribault Hills S/D (Duval)	Main extensions	1,500.00
Jacksonville	Revisions Southside pumping station	
Jacksonville	Well drilling at River Oaks station	
		$2,574,920.00

* Under construction; ** Completed; II Part of plans for $5,000,000 extension program for City of Jacksonville approved February 28, 1947.

63 Plans approved for new water plants and/or systems or extensions
18 Completed
41 Under construction
4 Status quo

Operations

Public water works operation and its sanitary supervision continued to receive considerable attention of the department during the year. Field engineers in the several regions performed the bulk of this activity. The assignment of engineers on a regional basis continues to be a prime factor in organized effort for improved operation.

In-service training of water works operating personnel was again carried out at the University of Florida. Actively cooperating in the cooperative undertaking, personnel of the department served as part of the instructing staff during the annual one-week short course and conference. While the value of the short course held at the University annually is not doubted as to improvement in water works operation, the fact continued evident during the year that this program is far less effective than is desired. Incomplete results on a survey of operating personnel being made by the department show only a minor fraction of the total are benefitted because the major fraction do not attend the course. Attendance at Gainesville this year was very good, using as a standard attendance records of recent years, but the survey apparently points out the sharp need for expanding water works in-service training on regional basis to improve its accessibility.

Public Water Supply Wells

Pursuant to the State Board of Health's statutory responsibility for sanitary jurisdiction over the waters of the state, there were exactly 100 permits issued for the construction of public water supply wells. It is felt that coverage of this facet of water control is still not complete, however, even though the number of permits issued represents an increase of 54 per cent over the previous year. Apparently, continued efforts of the State Board of Health to gain a more thorough degree of cooperation of the well drilling industry are pointed in the right direction.

Bottled Water Plants

There were 33 permits issued by the State Board of Health during the year for the operation of bottled water plants, which represent a slight increase (10%) over the number of such permits issued in the previous year. Inspections for sanitary control were performed and reported by accredited local health departments and regional engineers under minimum bacteriological and sanitary standards of the department. In Table II there are listed the establishments to which bottled water plant permits were issued in 1949.

TABLE II
PERMITTED BOTTLE WATER PLANTS 1949

LOCATION	NAME
Gainesville	Magnesia Springs Water Co.
Starke	Hilbron Mineral Water Co.
Pompano	Curlew Wells
Hibernia	Perfection Water Co.
Miami	Crystal Springs Water Co.
Miami	Tripure Products Co.
Jacksonville	Good Hope Water Co.
Tampa	Crystal Spring & Polar Water
Tampa	Purity Springs Water Co.
Ft. Myers	Perfection Water Co.
Palma Sola	Shorelands Deep Rock
Orlando	Polar Water Co.
Lake Worth	Crystal Rock Water Co.
West Palm Beach	Deep Rock Water Co.
Delray Beach	Klear Water Co.
Safety Harbor	Safety Harbor Spa., Inc.
St. Petersburg	Misto Water Co.
St. Augustine	Perfection Water Co.
St. Augustine	Polar Water and Beverage Co.
Ft. Pierce	White Ridge Water Co.
Sarasota	Perfection Water Co.
Sarasota	Pinehurst Spring Water Co.
Sanford	Elder Springs Water Co.
Altamonte Springs	Altamonte Springs
Perry	Fenholloway Springs Water Co.
New Smyrna Beach	Flamingo Water Co.
Daytona Beach	W. W. Abercrombie's Mineral Water
Orange City	Orange City Water Co.
Maine	Poland Springs
Arkansas	Mountain Valley Sales Co.
New York	Saratoga Springs Authority
New York	Kalak Water Co. of New York.

Under close control of procedure, one bottled water plant located in Miami was permitted to add limited concentrations of sodium flouride to water as a product designed for sale as an adjunct to dental caries control. This was the first such plant approved and the procedure worked out with the plant management involved batch application and chemical analytical control.

Public Swimming Pools

Under the administrative policy of continuing valid the permits issued for operation of public pools while same comply with State Board of Health standards and regulations, there were 104 permits for such pools continued in effect during the year. To these were added 40 permits issued for new pools, or a total of 144 public pools under permit by the State Board of Health in 1949. This represents an increase of 39 per cent over the number effective in the previous year. Table III comprises a list of the pools. Two permits were revoked during the year.

TABLE III

PERMITTED SWIMMING POOLS 1949

LOCATION	NAME OF POOL
Melbourne	Melbourne Swimming Pool
Melbourne Beach	Crystal Beach Club
Melbourne	Wells Park Pool
Ft. Lauderdale	McMillan Pine Crest School
Hollywood	Hollywood Beach Casino
Ft. Lauderdale	Ft. Lauderdale Casino
Hollywood	Hollywood Beach Hotel Company
Orange Park	Boy Scout (Camp Echockotee)
Naples	Naples Hotel
Lake City	Hollingsworth Swimming Pool
Miami Beach	Beach Cabana Club
Miami Beach	Surf Club
Miami Beach	Sea Isle Hotel
Miami Beach	Nautilus
Miami Beach	Lord Tarleton Hotel
Miami Beach	Versailles Hotel
Miami Beach	Richmond Hotel
Miami Beach	Marseilles Hotel
Miami Beach	Delano Hotel
Miami Beach	Drake Villa
Miami Beach	Wohl Studio Apartments
Miami Beach	Saxony Surf Club
Miami Beach	Monte Carlo Hotel
Miami Beach	Town and Beach Club
Miami Beach	The Hotel Sorrento
Coconut Grove	Florida—Adirondack School
Miami Beach	Sherry Frontenac Cabana Club
Miami Beach	El Morocco Pool
Miami Beach	Continental Hotel
North Miami	Miami Shores Country Club
Miami Beach	Shoreham-Norman Hotels
Miami Beach	South Seas Hotel
Miami Beach	Royal Palm Pool
Miami Beach	St. Moritz Pool and Cabana Club
Miami Beach	Sagamore Hotel
Miami Beach	Bay Harbor Hotel
Miami Beach	Greenbrier Hotel
Miami	Suburban Club Apartment Pool
Atlantic Beach	Atlantic Beach Hotel
Jacksonville	Municipal, Lackawanna Park
Jacksonville	Municipal, Springfield Park
Jacksonville	Church of Good Shepherd
Jacksonville	San Jose Country Club
Jacksonville Beach	Sandpiper Hotel
Jacksonville	Moncrief Spring
Jacksonville	Timuquana Country Club
Tampa	Davis Island Pool
Tampa	Cuscaden Pool
Vero Beach	Beachland Hotel
Vero Beach	City of Vero Beach
Marianna	West End Pool
Leesburg	Venetian Gardens
Mt. Dora	Lakeside Inn
Tallahassee	College Swimming Pool
Hobe Sound	Jupiter Island Club
Stuart	Sunrise Inn
Orlando	Orlando Country Club

TABLE III (Continued)

PERMITTED SWIMMING POOLS 1949

LOCATION	NAME OF POOL
Orlando	Orange Court Hotel
Lake Worth	Lake Worth Casino
Palm Beach	Sun and Surf Club
Palm Beach	Hotel Mayflower
Palm Beach	Bath & Tennis Club
Palm Beach	Lido Pools
Palm Beach	Breakers Hotel
Palm Beach	Sea Spray Beach Club
Miami Beach	Flamingo Hotel
Miami Beach	Indian Creek Country Club
Miami Beach	Shelborne Hotel and Cabana Club
Miami Beach	Everglades Cabana Club
Miami Beach	North Shore Hotel
Miami Beach	Cadillac Hotel
Coconut Grove	Snapper Creek Camp
Miami Beach	President Madison Hotel
Miami Beach	Blue Ocean Villa
Miami Beach	Carribbean Hotel
Miami Beach	Bay View Apartments
Miami Beach	Y. M. C. A.
Miami Beach	Tatem Hotel
Coral Gables	Venetian Pool
Miami	Liberty City Amusement Pool
Miami Beach	Plymouth Hotel
Miami Beach	Claridge Hotel
Miami Beach	The Bath Club
Miami Beach	Sea Gull Cabana Pool
Miami Beach	Coral Reef Hotel
Miami Beach	MacFadden-Deauville Hotel
Miami Beach	Georgia Hotel Pool
Miami Beach	Westchester Normandy Apartments
Miami Beach	Floridian Hotel Corp.
Miami Beach	Ritz Carlton Hotel
Miami	Kenilworth Hotel
Miami	Miami Military Academy
Miami Beach	Beach End Pool
Miami	King Cole Hotel
Miami Beach	Martinique Cabana Club
Miami	Bell Haven Camp
Miami	Barry College Pool
Miami Beach	National Hotel Pool
Miami Beach	White House Hotel
Miami Beach	Miami Beach Shore Club
Miami Beach	Lear School
Miami Beach	Roney Plaza Cabana Sun Club
Homestead	Homestead Municipal
Coral Gables	Riviera Country Club
Hialeah	Benny Babcock
Miami Beach	Vanderbilt Hotel
Miami Beach	Sands Hotel
Miami Beach	Raleigh Hotel
Miami Beach	Albion Hotel
Miami Beach	Blackstone Hotel
Surfside	Blue Horizon Hotel
Miami	Robert Clay Hotel
Miami	Sea View Hotel

TABLE III (Continued)

PERMITTED SWIMMING POOLS 1949

LOCATION	NAME OF POOL
Palm Beach	Coral Beach Club
Palm Beach	Monte Cristo Pool
Riviera Beach	Inlet Court Hotel
Pahokee	Community Swimming Pool
West Palm Beach	Brown-Dal Motor Lodge
Boca Raton	Garden Pool, Boca Raton Club
Boca Raton	Cabana Pool, Boca Raton Club
Delray Beach	Flagler Apartments
West Palm Beach	Palm Beach Junior College
Palm Beach	Palm Beach Biltmore Hotel
St. Petersburg	Spa Municipal
St. Petersburg	Y. M. C. A.
St. Petersburg	The Admiral Farragut Academy
Belleair	Belleview Biltmore Hotel
St. Petersburg	Vinoy Park Hotel
Ponte Vedra	Ponte Vedra Club
Ft. Pierce	Paradise Park Pool
Ft. Pierce	Bamboo Court Pool
Sarasota	Sarasota Lido Pool
Sarasota	Florasota Gardens
Sanlando Springs	Sanlando Springs Pool
Sanford	Mayfair Inn
Oviedo	Sweet Water Park Pool
Perry	Perry Municipal Pool
Daytona Beach	Campbell Street Pool
Daytona Beach	Cypress Street Pool
Daytona Beach	Sheraton Plaza Hotel
Daytona Beach	Welch Swimming Pool No. 1
Daytona Beach	Welch Swimming Pool No. 2
Daytona Beach	Y. M. C. A.
Chipley	Chuck and Eddies

The plans and specifications for proposed construction of pools and for improvement and renovation of existing pools reviewed and approved by the State Board of Health are listed in Table IV. Estimated costs of the projects total $1,401,000, representing an increase of 32 per cent over the estimated value of these projects approved in the previous year. These 47 projects are 13 more than the number approved by the State Board of Health in the previous year, or an increase of 38 per cent in number.

TABLE IV

PLANS AND SPECIFICATIONS APPROVED FOR SWIMMING POOLS, 1949

LOCATION	PROJECT	$ EST. COST
Melbourne	Trade Winds Club	$ 9,000
Ft. Lauderdale	Gill, Inc.	30,000
Ft. Lauderdale	Weldon Apartments	12,000
Ft. Lauderdale	Holiday Hotel	35,000
Ft. Lauderdale	El Clair Apartments	30,000
Miami Beach	Willark Corp.	35,000
Miami Beach	Homer, Inc.	35,000
Miami Beach	Homer, Inc.	35,000
South Miami	City of South Miami	75,000
Miami Shores	Miami Shores Country Club	75,000
Miami Beach	Grenbrier Hotel	40,000
Miami Beach	St. Moritz Hotel	25,000
Miami Beach	Royal Palm Hotel	30,000
Miami	Westview Country Club	50,000
Miami	Y. M. C. A. Park	30,000
Miami Beach	Can-American Corp.	6,000
Miami	City of Miami—Dixie Park	65,000
Miami	City of Miami—Gerry Curtis Park	65,000
Surfside	Coronado Hotel	35,000
Miami Beach	Traymore Hotel	28,000
Miami Beach	Spring Corporation	20,000
Miami Beach	Promenade Hotel	35,000
Miami	Sandpiper Villas	25,000
Miami Beach	Rendale Hotel	25,000
Miami Beach	Triton Hotel	35,000
Miami Beach	Sovereign Hotel	28,000
Miami Beach	Henroco Holding Co.	22,000
Jacksonville Beach	Sandpiper Hotel	3,000
Mount Dora	Lakeside Hotel	1,000
Ocala	Red Gate Hotel Court	17,500
Key West	Max Cohen's Court	15,000
Key West—Tropical Key	Greyhound Post House	15,000
Tavernier	Plantation Yacht Harbor	20,000
Palm Beach	Biltmore Hotel	90,000
Lakeland	City Pool	5,000
Lake Wales	Mountain Lake Club	60,000
Lakeland	Yacht and Country Club	15,000
Miami	Shrine Pool	30,000
Miami Beach	Shore Club Pool	5,000
Miami Beach	Normandy Island Pool	30,000
Miami Beach	Beham, Inc.	20,000
Marathon	Floyd W. Davis Pool	15,000
Tampa	Tampa Yacht & Country Club	35,000
Sarasota	Sarasota Terrace Hotel	25,000
Sanford	City of Sanford	47,000
Daytona Beach	Welch Pool No. 2	500
Ormond Beach	Hotel Ormond	37,000
DeLand	Municipal Pool for Colored	15,000
Total		$1,401,000

BATHING PLACES

Recreational areas where bathing and swimming are done are permitted under regulations of the State Board of Health; however, sanitary standards are not considered as rigid as those applying to swimming pools, since natural waters are generally involved. Upon application to the State Board of Health, a sanitary survey of the site is made by local health department personnel or the regional sanitary engineer concerned. Upon satisfactory or possibly good findings, a bacteriological survey of the waters proposed for use is then conducted to determine the coliform index thereof. If bacterial quality of such waters is found to meet standards, then a permit is issued after requirements for sanitary facilities are complied with. As long as no detrimental changes occur at the site, the permit continues valid.

There are listed in Table V the 35 bathing places for which permits continued in effect through the year. These include 13 of such places for which permits were newly issued in 1949.

TABLE V

PERMITTED BATHING PLACES AS OF 1949

COUNTY	NAME
Pinellas	Boy Scout Camp Soule
Pinellas	Wall Health Springs
Seminole	Lake Emma (Girl Scout Camp)
Seminole	Island Lake (Boy Scout Camp)
Wakulla	Wakulla Springs
Alachua	Glen Springs
Alachua	Magnesia Springs
Broward	Camp Snyder (Boy Scout Camp)
Broward	Rotary Girl Scout Camp
Clay	Spring Cove Bathing Place
Clay	Camp Immokalee
Clay	Kingsley Beach
Clay	Keystone Beach
Clay	Gold Head Branch State Park
Clay	Seminole Boys Camp
Clay	Camp Chowenwaw
Escambia	White Boy Scout Camp
Franklin	Gorrie Bridge Bathing Place
Hamilton	White Springs
Hillsborough	Forest Hills Country Club
Hillsborough	Palm Beach Tourist Court
Hillsborough	Becker's Trailer Court
Leon	Camp Flastacowo
Leon	Levy's Bathing Place
Leon	Boy Scout Camp (Lake Cypress)
Liberty	Lake Mystic
Liberty	White Springs
Marion	Girl Scout Camp
Marion	Rainbow Springs
Martin	Hospital Pond
Nassau	Lake Hutson
Orange	Lake Lorna Doone
Orange	Lake Estelle
Orange	Rock Springs

COMMON CARRIER WATER SUPPLY AND WATERING POINT SANITATION

An important phase of control of water consumed or used by the public is the sanitary supervision of water taken aboard ships, planes, and railway trains for their passengers and crews. This program, consisting of two features (1) the quality of the water at its source and (2) the sanitation of facilities used in watering the carriers, continued during the year as a cooperative activity with the United States Public Health Service.

In this program field inspections are made by county or regional sanitary engineers, and their reports coordinated and submitted together with the State Board of Health's recommendations to the Public Health Service, Regional Office, Atlanta, for certification or prohibition—based upon recommended standards of the Service. In Table VI there are listed details of this activity for the year.

TABLE VI

COMMON CARRIER WATER SUPPLY AND WATERING POINT INSPECTIONS AND RECOMMENDATIONS FOR CERTIFICATIONS TO U. S. PUBLIC HEALTH SERVICE

	Water Supply				Watering Point		
	Apprvd.	Provs'l.	Prohbtd.		Apprvd.	Provs'l	Prohbtd.
Railroad Companies	41	0	0	—	40	0	0
Air Lines	11	1	0	—	11	1	0
Vessel Companies	12	0	0	—	8	4	1

MUNICIPAL SEWERAGE PROJECTS

Planning and design studies for sewerage systems and treatment plants continued at a brisk pace during 1949. The year closed with the City of Tampa making rapid progress on its $13,000,000 sewerage improvement project and the sewerage construction for Orlando scheduled for completion in early 1950. The City of Miami is going forward with the planning for a sewage treatment plant and extensive improvements and extensions to its collection system. Numerous other planning and construction programs are in various stages of progress all over the state and the general outlook is encouraging.

Although the total number of plans for sewerage projects approved during 1949 barely exceed one-half the number of similar plans approved during 1948, the estimated cost for 17 of the 18 projects approved in 1949 is $16,349,000. This figure compares with an estimated cost of $8,376,835 for 32 projects approved in 1948. The increased average cost per project approved during 1949 is due mainly to the $13,000,000 project for Tampa. Eight of the approved projects, with an estimated cost of $15,326,000 were under construction or bid on during 1949 and four of the eight have been completed. A list showing the municipality, the project, and the estimated cost of the project is shown in Table VIII.

TABLE VII

SEWERAGE PROJECTS APPROVED IN 1949

MUNICIPALITY	PROJECT	ESTIMATED COST
Callahan	School septic tank & sand filter	$ 18,000.00**
Chattahoochee (Fla. State Hospital)	Additions & Alterations to plant	105,000.00*
Coral Gables	Sewerage System	....
Coral Gables	Life Station	98,600.00
Dunedin	Sewerage imp. (Revised plans)	500,000.00*
Ft. Lauderdale	Remodeling of existing plant	208,000.00*
Jacksonville	School septic tank & sand filter	6,000.00**
Jacksonville Beach	Treatment plant	125,000.00*
Jacksonville	Subdivision septic tank & sand filter	20,000.00**
Lake City	Treatment plant improvements	430,000.00
Lakeland	Treatment plant at Carpenters' Home	16,000.00*
Macclenny	Sewerage & Sewage Treatment	142,000.00*
Melbourne	Sewerage Extensions & Treatment plant	260,000.00
Penney Farms	Septic tank & sand filters	20,000.00
Tallahassee	Sewerage Additions at Florida A. & M. College	4,000.00**
Tampa	First phase Sewerage Project	13,000,000.00*
Vero Beach	Second Treatment Plant for city	265,000.00
Winter Haven	Sewerage & Sewage treatment	1,230,000.00*
		$16,349,000.00

* Under Construction or Bid on

** Completed.

18 Plans approved for new sewage treatment plants and/or systems or extensions.

4 Completed

8 Under Construction.

6 Status quo.

INDUSTRIAL WASTES

It should be noted that considerable work was accomplished in the alleviation of industrial waste problems despite the small number of treatment plants actually constructed. State Board of Health personnel were active in consulting with various small concerns especially milk processing plants and abattoirs. In the majority of such cases, however, the treatment works consists of septic tanks or other type holding tanks and no figures are available on the actual construction costs.

One of the major industrial waste problems in the state is the disposal of citrus wastes. Although it must be admitted that no satisfactory and economical method of treatment for these wastes has been devised as yet, research on by-product utilization by the Florida Citrus Commission is continuing. At many individual plants, considerable abatement of pollution has been effected by careful housekeeping, fine screening and lagooning in isolated areas.

A major survey by the Florida State Board of Health on effects on Florida Streams of wastes from phosphate mining operations is now in progress. Through this study, which is set up for a three-year period, it is hoped to fix definitely the proportionate responsibility of the phosphate industry for the pollution existing in the various receiving streams. The major portion of the study is being financed through a grant-in-aid from the phosphate industry. While the current survey does not include the study of specific treatment methods for the waste, it is expected that the results will provide the basic material for such research work if such work proves necessary.

A similar study on the effects of pulp and paper mill wastes is approximately two-thirds completed. This survey is of much shorter duration (6-8 months) and is being conducted jointly by the National Council for Stream Improvement and the Florida State Board of Health. Under the joint agreement through which this study was undertaken, the results of the six-months survey will be summarized and discussed and further investigations may then be initiated if the preliminary results warrant such action. The State Board of Health work on this study is partially financed by a grant-in-aid from the paper mills located in Florida.

It is expected that increased emphasis will be placed on industrial waste problems in 1950 as a result of funds from the Public Health Service which have been made available for this specific purpose. With these funds two engineers have been hired and additional survey equipment has been purchased.

Plans for nine industrial waste treatment plants were approved during the year. Eight sets of the approved plans were for laundry waste disposal systems and one set of plans was for a frozen food plant.

TABLE VIII
PLANS FOR INDUSTRIAL WASTE TREATMENT APPROVED IN 1949

LOCATION	TYPE OF INDUSTRY	ESTIMATED COST
Miami	Laundry	$ 3,000.00*
St. Petersburg	Laundry	$ 3,000.00*
Miami	Laundry	$ 3,000.00*
St. Petersburg	Laundry	$ 3,000.00*
Miami	Laundry	$ 3,000.00*
Melbourne	Laundry	$ 3,000.00*
Arlington	Laundry	$ 3,000.00*
Jacksonville	Laundry	1,000.00*
N. Miami	Frozen Food Processing	25,000.00*
		$47,000.00

*Completed.

DRAINAGE WELLS

A total of 166 drainage wells were approved during 1949. The greater number of these drainage wells were for the disposal of waste water from closed system air conditioning units. These wells are considered as recharge wells since the water which enters them is clean and inoffensive. In general, the remainder of the drainage well permits issued were for wells to dispose of surface waters, swimming pool wastes and laundry wastes. Permits were issued for wells to dispose of swimming pool and laundry wastes only if the well was drilled to nonpotable salt water.

Distribution, by counties, of these permitted wells are shown in Table IX.

TABLE IX
DISTRIBUTION OF APPROVED DRAINAGE WELLS

COUNTY	NO. OF WELLS
Broward	28
Dade	134
Duval	1
Marion	2
Orange	1
	166

STREAM POLLUTION

The stream pollution work accomplished in 1949 far exceeds similar work by the Bureau in previous years. The joint survey being conducted by the National Council for Stream Improvement and the Florida State Board of Health along with the survey which is being conducted on the receiving waters of the phosphate mining waste has given a long delayed impetus to this phase of the Bureau work. Table X lists surveys conducted during 1949 with their present status.

TABLE X

POLLUTION SURVEYS

LOCATION	TYPE OF SURVEY	STATUS
Alachua Co.	Hogtown Creek Industrial Waste Survey	Reports completed
Bay Co.	St. Andrew Bay Pollution Survey	Reports completed
	Paper Mill Waste Survey	
Bradford Co.	Receiving Waters Hydraulic Mining Operations Waste (Humphreys-du Pont) Starke, Florida	Reports completed
Brevard Co.	Sebastian Inlet	Report in prep.
Clay Co.	Kingsley Lake (Industrial Waste Survey)	(See Bradford Co.)
Columbia Co.	Lake Isabella in Lake City (Drainage Well Investigation)	Reports completed
Dade Co.	Biscayne Bay Survey—Brief Investigation—Site Survey—Homestead Canal	Reports completed
Duval Co.	6-Mile Creek—Industrial Waste Survey	Reports completed
	Paper Mill Survey—St. Johns River	
	Inland Waterway Jacksonville Beach	Reports completed
Franklin Co.	Continuing Survey Apalachicola Bay	In progress
Gulf Co.	Port St. Joe—Paper Mill Survey	Reports completed
Jackson Co.	Chipola River	In progress
Lake Co.	Lake Eustis	Reports completed
Indian River Co.	Survey of Indian River	Report in prep.
Marion Co.	Industrial & Municipal Waste Study	Reports completed
Monroe Co.	Key West Survey	Reports completed
Nassau Co.	Joint Survey with National Council of Stream Improvements completed	Reports completed
	Bureau survey continuing	
Orange Co.	Survey Ground Water Conditions	Reports completed
Osceola Co.	Kissimmee	Report in prep.
Palm Beach Co.	Lake Worth Survey	In progress
Pinellas Co.	St. Petersburg	Reports completed
	Clearwater	In progress
Polk Co	Alafia & Peace River—Phosphate Waste Survey	In progress
Putnam Co.	Rice Creek—Paper Mill Waste	In progress
St. Johns Co.	St. Augustine Waters	Reports completed
St Lucie Co.	Fort Pierce area	No report written
Santa Rosa Co.	Black Water Bay	In progress
Sarasota Co.	Sarasota Bay	In progress
Volusia Co.	Halifax River	No report prepared

FEDERAL HOUSING ADMINISTRATION
(SEWAGE DISPOSAL AND WATER SUPPLY)

The greatly accelerated rate at which residential construction was continued in 1949 is reflected by the increased number of FHA forms which were approved during the year. This year's activities represent the fourth year of the cooperative agreement between the Florida State Board of Health and the county health departments on the one hand and the Federal Housing Administration on the other, a modification of the original State Board of Health—FHA Working Agreement. The Florida State Board of Health and the country health department certify individual sewage disposal and water supply systems serving premises for which the property mortgage is issued by the Federal Housing Administration. This certification is designed to protect both the health and the investment of families purchasing FHA financed property.

Activities for the year are summarized below:

FORM NO.	DESCRIPTION	NO. APPROVED
FHA—2218	Inspection Report and Certification (Sewage Disposal)	10,833
FHA—2217	Inspection Report and Certification (Water Supply)	213
FHA—2084C	Subdivision Percolation Report	33

TOURIST COURTS AND TRAILER CAMPS

The continued growth of the tourist court and trailer park industry in the State is reflected in the high level of activity in issuing permits for the operation of new installations during 1949. The following list tabulates the tourist court and trailer park permits issued during the year:

	REISSUED	NEW	TOTAL
Tourist Camp Permits	80	190	270
Trailer Camp Permits	71	152	224
TOTALS	151	342	494

The number of old permits which remained valid, together with the new permits issued, and the old reissued permits brought the total number of approved tourist court and trailer park installations to 2145 at the close of the year.

SCHOOLS

Cooperation with the Florida State Department of Education to assure that adequate water supply and sewage disposal facilities are included in all school remodeling and new construction projects still continues. Twenty inquiries regarding sewage disposal for schools were handled during 1949 for the State Department of Education. Investigations were made and plans were approved on an additional 22 waste treatment projects.

CANNING PLANTS

This classification includes plants canning all types of foods, juice extracts, and preserves. Permits are issued on a permanent basis subject to continuing satisfactory inspection. Activity for the year with respect to the permitting of these canneries was as follows:

Permits in effect in 1948 and continued through the 1949 season	157
New permits issued during 1949 season	6
	163

SEA FOOD SANITATION
OYSTERS

A highlight in the sanitary control of oyster production was the virtual completion of arrangements and plans for the installation of a small laboratory for bacteriological examination of shellfish-growing waters in the Apalachicola area where a large portion of production occurs. The basic cost of this installation is to be shared by the State Department of Conservation and the State Board of Health, with maintenance and personnel provided by the State Board of Health. This is the realization, in part, of the long needed addition to the shellfish division, which has been foreseen and planned for some time.

In addition to the bacteriological analyses of Apalachicola Bay waters, the person assigned to that detail will also spend a considerable part of his time on inspection of producing houses located in Franklin County. With the completion of this arrangement, it is expected that this needed, markedly improved, sanitary control will start functioning early in 1950.

Statistical data on oyster sanitation are included in Table No. XI and Table No. XII.

CRUSTACEA

In order to exist, some of the larger fresh crabmeat producers have turned their efforts to packaging and freezing crabmeat prepared products. Deviled crab in cleaned and sterilized crab shells and deviled crab rolls retailed through the super markets have become a considerable business throughout the southern coastal states this year.

Fresh frozen, peeled frozen, and peeled de-veined, already-battered shrimp, frozen in eye-appealing packages have become a business of no mean proportions.

Cognizant of this growth and trend towards prepared, packaged and frozen seafood products, this division drafted proposed sanitary controls to regulate the rapidly expanding industry. Copies were furnished the U. S. Public Health Service and the U. S. Pure Food and Drug Administration, as well as bordering states' health departments, for their reactions and comments. A preliminary meeting has been set in Savannah, Georgia for January 26, 1950 to discuss these regulations. Representatives of the U. S. Public Health Service, U. S. Pure Food and Drug Administration, South Carolina, Georgia and Florida State Health Departments will attend. The ultimate objective of this meeting is to establish regulations that will be accepted and adopted by all of the southern producing states.

Statistical data on crabmeat sanitation are included in Table No. XI.

BAY SCALLOPS

Commercial production is negligible. In waters off Snead Island, Palmetto, again during August, the free-for-the-gathering harvest of 1948 to the local citizens was repeated, though for a shorter period. The unscientific practice of harvesting Pecten irradians (bay scallops) during the summer preceding the spawning season, instead of late fall or winter, has kept production low for many years.

Statistical data on scallops are included in Table No. XI.

CLAMS

Production is practically nil and confined to non-commercial harvesting. 1948 saw the end of large scale commercial production on the west coast, particularly in the Thousand Island area. St. Augustine, New Smyrna, Ft. Myers and Englewood are the only areas producing the Venus mercenaria (bay clam) in Florida

Again this year, it is re-emphasized that biological research on this practically extinct shellfish should be started and maintained.

Statistical data on clam sanitation are included in Table No. XI.

TABLE NO. XI
SUMMARY OF ACTIVITIES — SEAFOOD PLANTS

Description	Operating Certificates Issued	State Inspections Made	Plants Remodeled or Additions	New Plants Constructed
Oyster shucking and packing	61	387	1	4
Oyster shellstock only	5	17	0	0
Scallop shucking and packing	5	10	0	1
Clam shucking and packing	4	8	0	0
Crabmeat picking and packing	46	276	1	6
Lobster picking and packing	0	0	0	0

TABLE NO. XII
SEAFOOD SANITATION—ADDITIONAL ACTIVITIES, 1949

Oyster growing area pollution surveys	3
Oyster growing area water samples analyzed by S.B.H. Laboratory	1440
Oyster meats specimens cultured and analyzed by central S.B.H. Lab.	47
Oyster bootleg activities investigated	3
Half-shell bar inspection and consultation	47
Lectures—Seafood Sanitation (Sanitary Officers' Short Courses University of Florida, Gainesville	3
Florida meetings—Fla. P. H. A.—Marine Fisheries Institute	2
Out-of-State meetings—Bainbridge, Ga.—Pollution contribution to Apalachicola River	1
Conferences with Florida State Conservation Department.	
Lectures—Food Handling Schools, together with many routine contacts.	

PROJECTS DEVELOPED AND ACTIVITIES PERFORMED BY THE BUREAU DRAFTING ROOM—1949

1. Preparation of maps, charts and graphs to illustrate all of the pollution surveys as shown in Table X of the Wastes Treatment and Disposal section of this report.
2. Preparation of numerous maps, flow diagrams, schematic drawings and illustrations for reports and publications related to sanitary conditions at certain sewage treatment plants, schools, swimming pools and septic tank installations.
3. Preparation of standardized mechanical drawings of a portion of the approved swimming pool plans on file showing sanitary features and other pertinent information.

4. Acquisition of bids, letting of contracts and the general supervision for the completion of the State Board of Health Central Florida Branch Laboratory Clinic and warehouse buildings, Orlando, Florida.

5. Reorganization of the plan filing system; transferring plans from old vertical wood cabinets to flat metal drawer cabinets.

6. Routine recording and filing of plans reviewed and/or approved by the bureau; preparation of stencils and reproduction of original drawings of maps, charts, graphs and forms on the Ozalid printing machine.

DIVISION of ENTOMOLOGY

Continued progress was made by the division during the year to bring under control those human diseases transmitted by arthropods (insects and related organisms) and also ground work was laid to assist in alleviating annoyance to humans by biting flies.

Malaria, once the great scourge of Florida, was approaching the stage of almost complete extinction. However, there were 43 cases and 6 deaths reported.

Another insect-borne disease, endemic typhus fever, showed a steady decline from the previous year; only 123 cases and 3 deaths were reported.

The Division which consulted with the Florida Anti-Mosquito Association, was successful in having passed by the Legislature a State aid bill appropriating $350,000.00 for mosquito and human biting fly control which will enable the State Board of Health to give assistance to mosquito control districts and county health departments. Under the bill each county is eligible to receive a maximum of $15,000.00 in insecticides, material, trucks and personnel. The extent of assistance which may be etended will be dependent upon the amount of this money which is released by the Budget Commission.

The State received $169,824.91 for malaria and $776,792.15 for typhus control from the Communicable Disease Center of the United States Public Health Service. In addition, the State and local agencies appropriated $140,579.58 for malaria and $71,349.84 for typhus control activities.

STRUCTURAL PEST CONTROL

In its enforcement of the Florida Structural Pest Control Law, this division has continued to receive excellent cooperation from the structural pest control industry in the State during 1949. Outstanding progress has been made in the endeavor to raise the pest control standards of certain structural pest control firms in Florida, and these efforts have been compensated by more effective services rendered to home owners who employ thse firms. Further progress has also been made in efforts to eliminate the activities of unscrupulous intinerant termite control operators from the State.

Investigations: Sixty investigations were made of complaints of home owners and of reports of illegal pest control activities. Most of these complaints were investigated personally, and satisfactory settlements were negotiated between the involved home owners and pest control firms without legal action.

One pest control operator was convicted of illegally performing structural pest control work and was sentenced to serve 60 days in jail.

Registrations: Registrations of structural pest control firms have continued throughout the calendar year and are tabulated as follows:

161 Licenses issued in 1948-49 @ $25.00 each	$4,025.00
622 Identification cards issued in 1948-49 @ $1.00 each	622.00
Total Revenue for the 1948-49 fiscal period	$4,647.00
164 Licenses issued in 1949-50 @ $25.00 each	$4,100.00
587 Identification cards issued in 1949-50 @ $1.00 each	587.00
Total Revenue for 1949-50 (through 12-31-49)	$4,687.00

Various pest control firms were visited in all parts of the State throughout the year in an effort to contact each licensed operator at least once.

Fogging Law: Another pest control law, designed to regulate the use of thermal aerosol fogging machines for applying insecticides in structures, was enacted by the 1949 Florida Legislature.

This law places upon the State Board of Health the responsibility of examining, certifying and regulating individuals who operate thermal-aerosol fogging machines to perform structural pest control in the State.

Twenty-six individuals were examined under the law by this division in 1949, all of whom were issued Certificates of Authorization. Since the law provides for the collection of twenty-five dollars for each certificate issued, a sum of $650.00 was collected and deposited with the State Treasurer during 1949.

Rules and regulations were drafted and made ready for adoption by the end of the year. These rules and regulations are designed to regulate the application of certain poisonous insecticides by the use of thermal-aerosol fogging machines, especially in food processing plants, food dispensing plants, and in homes where young children are permanently housed. Several paragraphs are devoted to precautionary safety measures and to fraudulent and misleading advertising.

DDT RESIDUAL PREMISE SPRAYING

Summary of 1949 *Spray Operations*: Residual spray work was performed in twenty-six counties as an activity of the local health departments during 1949. Spraying was extended to include the outbuildings as well as the dwellings on each householder's premise. This practice raised the average cost per premise slightly but it was felt that the added protection afforded to the people justified the increased expenditure. Table 1 shows that 56,667 premises were treated, consuming 91,800 pounds of DDT and 78,200 manhours at the county level. The average cost per treated premise was $2.91, of which $.75 was county contribution.

In several counties where the prevalence of typhus fever was such as to warrant the expenditure of funds, a combined DDT residual spraying and DDT dusting operation was carried on. This type of program made possible the maximum benefits on a county-wide scale for prevention of malaria and typhus transmission using the minimum amount of equipment and personnel. As outlined in Table 2, this type of work was performed in four counties resulting in treatment of 10,971 premises at an average cost at the county level of $4.46 per treated premise.

EVALUATION OF DDT HOUSE SPRAYING

The summary of entomological evaluation of the Malaria Eradication Program shows that of 463 sprayed houses inspected, 98.9% were free of *Anopheles quadrimaculatus*. By comparison, only 81.4% of the houses which either had never been sprayed or were sprayed prior to 1948, were found to be free of this malaria-carrying mosquito. Inspections also indicated that DDT spray applied to houses during 1948 but unsprayed in 1949, was apparently still affording a high degree of protection to occupants of these buildings.

The concurrent control of houseflies was generally satisfactory in most operating counties which is attributed in part to a naturally low density of flies and to operational changes from previous years in that premises spraying was conducted for the first time during 1949. Evaluation of inspection data revealed that treated premises, having an outside density of flies greater than 10 per premise, had significantly less flies inside than did untreated homes with comparable outside densities.

Special fly tests were conducted in several counties whereby locally captured flies were exposed to selected surfaces inside treated homes to determine the residual toxicity of the spray tratment. Similar tests were conducted simultaneously, utilizing laboratory prepared plywood panels treated with the standard dosage of 200 MG DDT per sq. ft. These data indicated that the spray applications applied by operating personnel were generally satisfactory. Also, it was demonstrated that fly resistance to DDT was apparently present to a variable degree. Observations indicate that greater emphasis should be placed on sanitation supplemented by judicious utilization of insecticidal treatments to enhance fly control.

TYPHUS AND RODENT CONTROL

Summary of Typhus Control Activities: Typhus and Rodent control operations were carried on in eight counties: Dade, Escambia, Gadsden, Hillsborough, Jackson, Madison, Pinellas and Washington. All programs were operated as a function of the local health department concerned.

DDT Dusting: In order to make the greatest use of available funds, expand the areas covered by the dusting programs and still maintain a reasonable control of the rodent ectoparasites in the treated areas, all premises were treated once only during 1949. The total number of dusted premises totaled 46,360, using 222,971 pounds of 10% DDT dust for an average of 4.81 pounds of dust per premise. The labor required to perform this work amounted to 28,232 man-hours, 71% of which was furnished by local contribution.

Rat Proofing: One new rat proofing program at Clearwater, Florida was started in 1949. Rat proofing activities were continued in Pensacola, Miami and Tampa. A total of 310 places was ratproofed and 57 establishments formerly ratproofed, were repaired. There were 20,639 man-hours expended, of which 11,791 (57%) were local contribution.

Poisoning Activities: Poisoning was carried on in Dade, Hillsborough, Pinellas and Escambia counties. There were 4,878 pounds of poison bait placed in 6,404 establishments. A total of 3,454 man-hours was expended. Red squill, barium carbonate and zinc phosphide were the principal poisons used. In addition, small quantities of antu and a new rodenticide "Compound 42" were placed in various establishments. A total of 2,497 pints of "1080" poisoned water was distributed in 2,147 establishments, requiring 3,887 manhours.

Sanitation Activities: The reduction or elimination of available rat harborages, sources of food and other environmental conditions favorable to the rat populations is a vital but often neglected part of any rodent control program. In 1949, efforts were made to encourage sanitation activities as they related to rodents. In this work, 7,064 establishments were inspected requiring an ependiture of 11,520 manhours. In the fall of 1949, clean-up campaigns on a city-wide scale were begun in Hamilton, Jefferson and Lake counties. These campaigns were operated by the local health department. The community involved furnished the necessary gas, oil, etc. and the labor while the State furnished trucks and technical advice.

Promotional: The amount of funds made available to the State by the Public Health Service for assistance in the conduction of these programs was materially reduced this year. There will be a further drastic reduction in the sum allocated for these purposes for the fiscal year beginning July 1, 1950.

In view of this situation considerable time has been devoted to acquainting the local participating agencies with the

developments and the necessity for those agencies to shoulder a larger share of the cost of operation than heretofore. The response has been very gratifying and it is expected that ways and means will be developed for continuing a number of them after July 1, 1950, principally with local funds.

Educational: Members of this Division assisted with the instructional work and field demonstrations in connection with the Training Course for Sanitarians conducted jointly by the State Board of Health, the Alachua County Health Unit and the Commonwealth funds. This course serves to indoctrinate newly employed sanitarians and as a refresher course for those who have been on the job even for several years.

General educational work consisted of the showing of films, distribution of appropriate literature, talks before civic groups and officials, and personal contacts.

The relationship with the participating agencies has been very cordial and the cooperative attitude on their part is one of the factors which helped to produce the accomplishments reported.

Evaluation of DDT Dusting: Evaluation of the apparent effectiveness of typhus control activities for the over-all State program is presented in Table 3. Trapping of domestic rodents before and after treatment was carried out in all operating areas. Post-treatment trapping was continued periodically to determine the effective duration of the treatments. Rats trapped were anesthetized for securing blood samples and for combing of the ectoparasites for identification. 7.2% of 731 rats, trapped from all treated areas, were found to be infested with 359 X. *cheopis* (rat flea), the principal vector of endemic typhus, for an average of 0.49 Oriental flea per rat. By comparison, 53.4% of the 875 rats trapped from adjacent untreated areas were found to be infested with 4,007 *X. cheopis* for an average of 4.6 fleas per rat. Data presented in Table 3 also indicate the apparent effectiveness in reducing the incidence of other rat infesting ectoparasites, certain of which are of importance in transmitting the disease from rat to rat. The effectiveness of these treatments, as evidenced by data in Table 3, becomes more apparent when it is considered that these data include post-treatment trapping in the treated areas for as long as three years subsequent to dusting, and the institution of new projects utilizing inexperienced personnel with only limited supervision available.

In St. Augustine, an experimental project was conducted to determine the effectiveness of 5% DDT water emulsion spray for the control of rodent ectoparasites. A total of 567 gallons of spray was applied to 271 premises. Evaluation data show this treatment apparently effected an excellent initial reduction of *X. cheopis* which continued for a period of approximately nine months. Varying degrees of control of other rat ectoparasites, comparable to that normally obtained with DDT dust applications, were also obtained. However, the spray applications required an average of 78 minutes per individual premises treated. When compared to the State average of approximately 30 minutes per individual premises, for making comparable dust applications, it becomes apparent that this consideration alone would be a major deterrent to this type of treatment.

TABLE III

EVALUATION OF DDT DUSTING PROGRAM TYPHUS CONTROL ACTIVITIES, FLORIDA, 1949

	No. Rats Combed	No. X. *Cheopis*	Rats With *Cheopis*	Mean No. *Cheopis*	% Rats Infested *Cheopis*	Total Fleas	Total Mites	Total Lice	BLOOD % Pos.	BLOOD % Neg.
Treated	731	359	53	.49	7.2	880	2,063	2,615	3.5	94.1
Untreated	875	4,007	468	4.6	53.4	6,852	18,870	21,757	15.3	78.1

INVESTIGATIONS OF ANOPHELES ALBIMANUS

Intensive surveillance was continued in the Florida Keys and the southern coastal area of the mainland of the important Caribbean malaria vector, *Anopheles albimanus*. The species was collected only on Big Pine and Sugar Loaf Keys during the calendar year. Of 540,000 adult mosquitoes and 3,978 larvae and pupae collected in Monroe County, 293 adults and 521 aquatic forms were identified as *Anopheles albimanus*. The species was not found in Dade County in spite of widespread collecting. During November, adults were collected at night while resting on the side boards of a hog pen at the Big Pine Prison Camp, on the screens of the mess hall and by sweeping the vegetation surrounding the hog pen the following morning. Previous to this, it had not been possible to hand-collect adults of this species. During December, sixteen adults were collected in the late afternoon while aggressively biting man. No increase in malaria could be attributed to the species. However, reports from the Malaria Research Laboratory show that a laboratory colony established from specimens taken in this area is capable of transmitting at least on strain of *P. falciparum*. (Malaria parasite).

LABORATORY ACTIVITIES

During the year 2,253,748 adults and 18,298 larval forms of mosquitoes were identified and reported. Of 24,742 specimens examined, twelve species of sandflies (*Culicoides*) were identified from light-trap collections in fifteen counties. Also, 53,115 ectoparasites combed from domestic rodents were identified for evaluation of Typhus Control Activities. In addition, several hundred household pests and other arthropods of medical and economic importance were identified and reported.

TABLE IV

COLLECTION OF ANOPHELES ALBIMANUS ON BIG PINE AND SUGAR LOAF KEYS. FLORIDA, 1949

MONTH (1949)	Larvae and Pupae	ADULTS				Total
		Light-Trap Male	Light-Trap Female	Biting	Resting or Sweeping	
January — June	0	0	0	0	0	0
July	0	0	1	0	0	1
August	0	0	3	0	0	3
September	0	0	4	0	0	4
October	16	0	8	0	0	24
November	71	1	69	0	R - 68 S - 6	215
December	431 3*	0	79	16	Hog Pen—25 Spider Web—12 Toilet—1 Dead on Pond Surface—1*	568
Total	521	1	164	16	113	815

*—Indicates Sugar Loaf Key.

WATER IMPOUNDMENTS

An increase in the construction of water impoundments for the year was noted; thirty-two permits were issued for this purpose as compared to twelve during the previous year.

Fifty-five inspections were made of water impoundments which had been previously constructed to determine if they were being maintained in accordance with the Florida State Sanitary Code.

MOSQUITO RESEARCH AND INVESTIGATIONS

The station for mosquito research and investigation at Orlando has continued in its threefold mission of (1) securing more information on the biology and control of Florida mosquitoes, (2) conveying this information wherever and whenever requested or needed, and (3) acting as liaison between the multiple interests in mosquito control in the State of Florida. The latter two items involved reports, contacts, addresses, and conferences which are ill-adapted to cataloguing. It might be stated that the American Mosquito Control Association, the California Mosquito Control Association, and the Florida Anti-Mosquito Association were addressed on progress and methods of mosquito control in Florida. Newly formed mosquito control districts were given assistance and the benefit of entomological surveys. Five counties adopted mosquito control work during the year. This makes a total of 15 counties or parts of counties performing mosquito control. Research reports were prepared, but due to the continuing nature of the work, they have not been produced in form for general distribution.

Much of the research was done in Leesburg. Space-spraying here was carried on in cooperation with the city. Twenty-five treatments of DDT were made with a fog generator and a mist sprayer. Evaluation of machines and methods were based on daily collections of mosquitoes by twelve light traps. An entomology student from the University of Florida was employed during the summer to make special studies of the larval ecology of *Mansonia* mosquitoes, the predominant species in Leesburg. With a unique device he was able to collect large numbers of these little known larvae and to demonstrate many strikingly new aspects of their biology.

On Sanibel Island, the salt-marsh mosquito investigation was continued, but with unfortunate lapse intervals due to the difficulty of stationing personnel on the isolated island. The mosquitoes on this island reached phenomenal densities in 1949, and some of the largest light trap collections ever made in the United States were obtained. Such terrific mosquito numbers make field work on the island most uncomfortable, although rendering the area more desirable as research terrain.

A study of mosquito breeding as related to citrus waste pollution and water impoundment was made in Pinellas County. The direct relationship between pollution, low dissolved oxygen, absence of fish, and numbers of mosquito larvae was demonstrated with facts and figures.

Both the sandfly project near Miami and the mosquito sampler project at Gainesville were continued with progress being made in each.

The Florida light trap survey was expanded in 1949, particularly in the direction of West Florida where a lack of information on coastal mosquito problems is being filled. The information from the light traps operated in Florida is continuously being analysed at the Orlando station for trends and significance. The body of knowledge of Florida mosquito problems is thereby being constantly enlarged in respect to species causing annoyance, their distribution, their seasons, their relations to terrain and to weather.

TABLE I
DDT RESIDUAL SPRAYING PROGRAM, 1949
County Operational Costs

County	Total Houses Treated	State Cost	County Cost	Total Cost	Avg. Man Hrs. Per* Premise	Avg No. Lbs. DDT Per Premise	Avg Total Cost at County Level Per Premise
Bay	2,116	$ 4,052	$ 2,056	$ 7,108	1.73	1.40	$2.88
Calhoun	1,681	4,328	1,180	5,508	1.50	1.69	3.27
Citrus	1,322	3,208	1,248	4,456	1.58	1.34	3.36
Clay	52	52	19	71	0.61	0.94	1.36
Dixie	1,153	2,813	1,529	4,342	2.09	0.96	3.77
Escambia	2,096	4,320	1,656	5,976	1.22	1.41	2.85
Franklin	730	1,690	381	2,071	1.48	1.82	2.83
Gilchrist	829	2,702	977	3,679	2.08	1.51	4.44
Hamilton	2,047	4,787	2,294	7,081	1.62	1.71	3.46
Hernando	1,936	3,372	1,593	4,965	1.24	0.99	2.56
Holmes	3,639	7,202	3,694	10,896	1.14	1.57	2.99
Jackson	4,078	13,460	2,633	16,093	1.04	3.30	3.94
Jefferson	2,371	5,064	1,486	6,550	1.25	1.55	2.76
Lake	2,610	4,872	1,315	6,187	0.84	1.07	2.37
Leon	3,957	7,786	1,977	9,763	1.04	1.78	2.47
Levy	1,386	3,484	1,503	4,987	1.62	1.90	3.59
Liberty	879	3,601	759	4,360	2.42	1.81	4.96
Madison	3,010	5,993	2,840	8,830	1.61	1.44	2.93
Okaloosa	3,903	7,946	2,342	10,288	1.51	1.95	2.63
Polk	2,315	2,069	1,342	3,411	0.78	1.91	1.47
Santa Rosa	3,668	5,830	1,922	7,752	1.14	1.18	2.12
Seminole	2,363	4,138	1,454	5,592	1.03	1.03	2.37
Sumter	1,482	3,954	1,482	5,436	1.89	1.55	3.66
Taylor	2,751	4,420	1,725	6,145	0.84	1.06	2.24
Walton	2,486	5,400	2,006	7,406	1.69	1.69	2.98
Washington	1,787	5,748	939	6,687	1.19	2.57	3.74
Totals	56,667	$122,342	$42,352	$164,694	1.38	1.62	$2.91

*Includes manhours contributed by the State. CDC and local governments.

TABLE II
COMBINED SPRAYING AND DUSTING PROGRAM 1949
County Operational Cost

County	Total Premises Treated	State Cost	County Cost	Total Cost	Avg. Man Hrs. Per Premise	Avg. Lbs. DDT Per Premise	Avg. Lbs. 10% DDT Per Premise	Avg. Total Cost at County Level Per Premise
Jackson	4,078	$16,898	$ 5,286	$22,184	2.21	3.30	8.25	$5.28
Washington	1,787	6,898	1,715	8,613	2.11	2.57	6.53	5.11
Madison	3,010	7,099	3,841	11,940	2.15	1.44	4.74	3.65
Escambia	2,096	7,195	3,844	11,039	1.62	1.41	7.91	3.51
Totals	10,971	$38,090	$14,686	$52,776	2.10	2.77	7.17	$4.46

BUREAU OF LOCAL HEALTH SERVICE

George A. Dame, M.D., Director

There has been a noteworthy expansion in local health work in the year 1949. There has been an increase in number and quality of programs. This has been due to an increase in number of full time personnel; an upgrading of the quality of personnel and of consequent increase in salaries; an increase in the number of county health units and an increase in population served.

In the five year period ending December 31, 1949, the number of accredited county health units has increased from thirty-six to sixty-three or seventy-five per cent. Of the counties not now organized and accredited there remains only four, St. Johns, Lee, Hernando and Collier. Plans are now being worked out to set up a unit in St. Johns County on July 1, 1950. A great increase of interest has been shown in Lee County and this county may have an accredited unit before the end of 1950.

The population served has increased from 70.89% of the whole population to 88.31%. These figures do not include the City of Jacksonville which maintains its own health department and which covers a population of 207,000. If these figures were included then the total population served would be 97.51%. Budgets of the county health units have shown an increase of 98.3%, or from a total of $1,343,835 to a total of $2,663,518. The average contribution of funds from the counties have increased from fifty-one cents per capita of population to seventy-nine cents. A series of graphs are presented on above items for visual comparison. (See Graphs in Appendix.)

There were at the end of the year eighteen one-county units, seven two-county units, nine three-county units and one unit covering four small counties. The population of the units varied greatly in number. Dividing the total population served by the total number of units it is found that the average population of units is 56,777.

Financing of local health units is on a cooperative plan in which funds from local sources, the State Board of Health and the Federal Government participate. The total of all local health budgets for 1949 was $2,663,518. Of this amount 9% came from Federal sources; 28% from the State Legislature to the State Board of Health; and the remainder from local appropriations. The per capita expenditure from all sources for local health service, therefore, in 1949 was $1.34.

Personnel:

Technically trained employees of the county health units include 30 doctors, 105 nurses, and 104 sanitation personnel. All are governed by the Merit System, and therefore, must meet certain basic requirements as to the training and experience. Though all employees of local health units are actually appointed by their respective County Commissioners they are not political appointees, since they not only have to conform to the requirements of the Merit System, but also must be endorsed by the State Board of Health. The statistics which follow will serve to illustrate that health work in Florida is a career service:

Doctors:

(a) Training: One has a D.P.H. degree (Doctor of Public Health); 13 have M.P.H. degrees (Master of Public Health); and one will receive his M.P.H. in June, 1950; 16 have had three months or more of formal training; and three are Diplomates of the American Board of Preventive Medicine and Public Health. The latter is a specialty board of the same standings as all other medical specialty boards.

(b) Experience: Nineteen have nine or more years of public health experience; five have six years or more; eight have three years or more; eleven have less than three years.

(c) Age: The average age of all doctors in the health units is 44.

Sanitation Personnel:

(a) Training: Six have degrees in Engineering; two have M.P.H. degrees (Master of Public Health) and a third will receive this degree in June, 1950; 16 have college degrees; 50 have college training short of a degree; and 95 have had at least three months special training in sanitation.

Nurses:

For training and experience see the report on Public Health Nursing.

It should be emphasized that training does not stop with the completion of formal courses. The Field Technical Staff conducts a continuous program of on-the-job training and technical guidance.

The aim of the State Board of Health is to secure the best qualified personnel that can be obtained with the money available. To a large extent the procurement of personnel is a bidding proposition in which those with the best qualifications go to the highest bidder. Consequently salary scales are of vital importance. For doctors the scale ranges from $450 to $800 per month; for Sanitary Engineers from $225 to $550; and for sanitarians from $175 to $450. On the whole, the salary scales compare favorably with those of other Southern States, so that Florida has been able to attract and hold a fairly full complement of health workers.

Future planning of the Bureau of Local Health Service:

1. To secure an adequate number of personnel in the various categories.

2. To bring about a more equitable adjustment of salaries in the county health units and to secure more adequate salaries.

3. To secure an increased opportunity for training of personnel.

4. To work toward the setting up of accredited county health units in all counties of the state.

5. To use all out efforts to secure appropriations of more adequate funds by the counties for the support of the units.

6. To secure more adequate health department buildings through cooperation with the Florida State Improvement Commission and the Federal Agency concerned.

DIVISION OF PUBLIC HEALTH NURSING

Ruth Mettinger, R.N., Director

With the additional county health departments organized during 1949, the demand for nurses has increased. At the end of December 31, 1949, there were 278 nurses employed with the county health departments, and two vacancies. One hundred and five of these nurses have completed the approved course of public health nursing, and thirty have completed their collegiate degrees.

A total of 105 nurses are employed by other agencies which makes a total of 383 public health nurses in Florida.

The educational program has continued with five nurses attending three of the universities offering the approved course in public health nursing. This was made possible through scholarships offered by the State Board of Health.

The University of North Carolina offered the five weeks course in cancer, mental hygiene, geriatrics, orthopedics and tuberculosis. Nine county health department nurses took advantage of the short courses.

In cooperation with the Bureau of Maternal and Child Health, six institutional nurses were sent to Vanderbilt University and Xavier University for the course in the care of premature infants. These nurses will return to the hospitals where they were employed, and will be assigned to the premature departments.

The Medical College in Richmond, Virginia, offered a two-weeks course in supervision which one of the field supervisors attended.

The In-Service Training Center has continued to assist the county health departments by giving an orientation course to 11 nurses who have been employed by the departments but did not have training or experience in public health.

Four county health departments have accepted 10 graduate public health students from University of North Carolina, George Peabody College and Vanderbilt University for field experience which is required before completing the public health nursing course.

The conference on field experience conducted and held at the University of North Carolina was attended by one state nursing consultant and a nursing director of one of the larger county health departments. The information received at this meeting was very helpful to other counties taking students.

Five hospital schools of nursing have requested field experience with the county health departments. The length of period has varied from three days to six weeks, but it has been the means of giving the student nurse an opportunity of observing the public health nursing program. By making home visits with the public health nurse, the student gains valuable insight on personal, family and community problems. Several of the students taking the field experience have chosen public health nursing as a career following graduation.

Public relations was chosen as the theme for the two-day Supervising Nurses Conference held in February. The workshop of the American Nurses' Association was secured.

The director of the Division of Public Health Nursing attended a conference in March in Atlanta, Georgia, on the recruitment and training problems of public health nursing of the Southeastern states. Each state reported the number of vacancies in public health nursing, and Florida had 8 vacancies at that time.

The Division of Public Health Nursing in cooperation with the Bureau of Maternal and Child Health licensed 437 midwives. The supervision of midwives has been a subject of much concern to the county health departments. A conference was held by the Division of Public Nursing and Bureau of Maternal and Child Health to discuss ways of licensing midwives early in the fiscal year, and to have closer supervision of the midwives. The state certified nurse midwife consultant has held 18 midwife institutes. The health departments have arranged for the meetings notifying the midwives and securing equipment. Nurses with the departments have been in attendance and have carried on the work recommended by the state consultant.

The Division of Public Health Nursing has cooperated with local agencies by referring to them nurses who could not accept positions in county health departments because of family situations. The supervising nurses of the local agencies have been invited to attend institutes and staff conferences.

Two hundred and ten visits have been made to the various county health departments by the state nursing consultants and the director of the Division of Public Health Nursing.

TABLE 1 — SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1949

FLORIDA 1949 COMMUNICABLE DISEASE CONTROL	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Citrus	Clay	Columbia	Dade	DeSoto
Admission to Service (A 1)	12	9	38	26	15	112	8	4	77	113	25	1,970	17
Consultations with physicians (A 2)	3	1	10	4	5	119	8	10	77	11	25	530	4
Field Visits (A 3-9)	21	45	68	59	28	270	5	4	104	123	166	2,862	85
Smallpox Immunizations (A 15)	693	121	1,087	343	138	321	320	44	48	163	166	8,862	194
Diphtheria Immunizations (A 16-18)	1,221	719	938	447	319	838	164	50	203	205	1,656	6,628	333
Typhoid Fever Immunizations (A 19)	5,839	989	2,252	152	16	2,141	1,031	271	454	777	2,613	837	234
Whooping Cough (A 20)	1,199	674	741	253	213	799	108	49	50	89	1,650	6,459	244
Tetanus (A 21)	1,245	655	852	321	52	1,020	156	184	36	90	2,231	6,679	322
VENERAL DISEASE CONTROL													
Admissions to Medical Service (B 1)	638	55	438	142	58	228	62	5	16	86	53	9,158	93
Clinic Visits (B 3)	1,722	147	1,115	238	294	5,735	118	322	49	168	1,082	36,522	799
Field Visits (B 4)	309	14	1,121	90	276	1,007	15	10	17	34	49	14,365	137
TUBERCULOSIS CONTROL													
Admissions to Medical Service													
C 1a. Cases	25	7	20	20	5	20	8	2	0	4	0	291	2
C 1b. Contacts and Suspects	49	47	12	240	12	42	17	4	1	3	0	3,534	40
C 1c. Arrested Cases	4	1	5	4	3	4	0	1	0	3	0	311	2
Admissions to Nursing Service													
C 2a. Cases	119	3	66	14	30	93	5	5	3	7	19	838	2
C 2b. Contacts and Suspects	450	20	288	59	60	200	27	5	2	25	87	266	10
C. 2c. Arrested Cases	14	3	23	1	27	13	0	0	0	5	10	62	5

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 COMMUNICABLE DISEASE CONTROL	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry
Admissions to Service (A 1)	0	45	219	45	12	35	0	2	1	3	12	15
Consultations with physicians (A-2)	3	38	102	29	6	7	0	10	9	3	36	22
Field Visits (A 3-9)	0	116	791	82	18	37	0	2	1	66	30	15
Smallpox Immunizations (A 15)	62	1,793	1,819	110	217	1,358	7	12	352	178	83	21
Diphtheria Immunizations (A 16-18)	192	2,772	4,969	317	202	516	734	73	129	149	397	336
Typhoid Fever Immunizations (A 19)	951	3,847	13,056	270	768	4,100	427	151	1,914	1,966	253	39
Whooping Cough (A 20)	178	1,487	2,147	316	94	294	446	63	126	146	157	319
Tetanus (A 21)	311	5,859	2,078	354	420	285	909	70	426	303	420	322
VENERAL DISEASE CONTROL												
Admissions to Medical Service (B 1)	96	3,578	1,342	62	87	246	1	5	55	55	34	41
Clinic Visits (B 3)	458	23,794	18,526	298	179	595	1	209	308	169	261	634
Field Visits (B 4)	32	2,248	4,514	89	157	597	9	51	35	48	42	44
TUBERCULOSIS CONTROL												
Admissions to Medical Service												
C 1a. Cases	3	0	29	2	1	20	0	7	1	6	9	0
C 1b. Contacts and Suspects	1	0	1,757	3	0	135	0	35	0	4	43	16
C 1c. Arrested Cases	0	0	77	0	0	12	0	1	0	0	1	2
Admissions to Nursing Service												
C 2a. Cases	10	126	129	5	7	20	14	15	5	3	8	7
C 2b. Contacts and Suspects	63	314	608	27	36	154	67	18	71	8	58	23
C 2c. Arrested Cases	4	45	17	1	2	15	0	0	5	2	3	4

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 COMMUNICABLE DISEASE CONTROL	Highlands	Hills-borough	Holmes	Indian River	Jackson	Jefferson	Lafayette	Lake	Leon	Levy	Liberty	Madison
Admissions to Service (A 1)	5	168	22	2	31	32	11	192	9	40	14	28
Consultations with physicians (A 2)	37	267	0	12	3	4	11	135	0	6	2	58
Field Visits (A 3-9)	6	304	46	4	34	34	14	381	38	50	14	55
Smallpox Immunization (A 15)	44	3,711	114	228	1,185	317	11	189	1,345	393	56	120
Diphtheria Immunizations (A 16-18)	178	3,610	966	467	46	188	151	236	1,147	189	63	712
Typhoid Fever Immunizations (A 19)	44	348	433	745	6,810	2,141	913	51	5,017	2,493	569	2,199
Whooping Cough (A 20)	178	1,524	371	445	492	79	160	182	500	142	49	669
Tetanus (A 21)	185	1,828	493	475	461	129	308	250	569	169	52	1,150
VENEREAL DISEASE CONTROL												
Admissions to Medical Service (B 1)	184	1,872	19	113	550	93	11	112	994	84	10	91
Clinic Visits (B 3)	1,028	38,520	71	425	733	315	28	1,176	1,324	689	65	1,759
Field Visits (B 4)	144	6,582	45	77	86	98	19	223	2,025	198	35	38
TUBERCULOSIS												
Admissions to Medical Service												
C 1a. Cases	6	80	10	0	1	3	6	0	22	3	1	20
C 1b. Contacts and Suspects	114	1.824	19	0	4	5	2	0	39	14	4	62
C 1c. Arrested Cases	6	332	0	0	0	1	0	0	8	0	1	2
Admissions to Nursing Service												
C 2a. Cases	9	179	15	20	17	8	3	52	63	10	2	11
C 2b. Contacts and Suspects	179	1,727	125	115	161	12	30	256	466	91	7	60
C 2c. Arrested Cases	7	199	12	5	5	1	1	33	11	14	0	4

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 COMMUNICABLE DISEASE CONTROL	Manatee	Marion	Martin Organized 11-1-49	Monroe	Nassau	Okaloosa	Okee-chobee	Orange	Osceola	Palm Beach	Pasco	Pinellas
Admissions to Service (A 1)	13	23	0	30	63	2	8	354	1	656	27	99
Consultations with physicians (A 2)	8	45	0	51	75	9	2	308	1	152	17	31
Field Visits (A 3-9)	27	64	0	64	99	2	10	534	1	1,337	39	252
Smallpox Immunizations (A 15)	753	838	0	480	1,054	383	70	2,288	171	268	166	1,269
Diphtheria Immunizations (A 16-18)	1,073	309	0	693	1,528	456	115	3,520	284	945	293	3,028
Typhoid Fever Immunizations (A 19)	2,362	5,950	0	966	1,800	1,760	607	9,445	174	1,949	3	466
Whooping Cough (A 20)	1,056	192	0	370	552	431	120	1,113	215	430	214	1,769
Tetanus (A 21)	2,728	209	0	916	510	790	243	2,554	57	1,270	422	1,826
VENEREAL DISEASE CONTROL												
Admissions to Medical Service (B 1)	447	387	2	134	17	40	29	521	57	1,048	136	951
Clinic Visits (B 3)	913	868	2	2,346	152	45	704	2,223	110	2,118	665	6,331
Field Visits (B 4)	378	1,305	1	127	49	53	227	1,053	179	2,231	121	1,608
TUBERCULOSIS CONTROL												
Admissions to Medical Service												
C 1a. Cases	13	1	0	16	4	1	0	24	0	94	28	82
C 1b. Contacts and Suspects	253	2	0	10	27	17	0	16	2	48	164	442
C 1c. Arrested Cases	38	0	0	1	4	0	0	9	0	13	12	151
Admissions to Nursing Service												
C 2a. Cases	68	99	0	31	35	3	3	178	16	201	26	89
C 2b. Contacts and Suspects	356	204	0	107	243	27	27	484	61	121	164	450
C 2c. Arrested Cases	51	28	2	32	24	2	2	85	0	32	13	150

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 COMMUNICABLE DISEASE CONTROL	Polk	Putnam	St. Lucie	Santa Rosa	Sarasota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla
Admissions to Service (A 1)	117	42	8	25	80	20	54	3	15	29	276	27
Consultations with physicians (A 2)	135	55	23	33	22	18	5	22	5	0	12	0
Field Visits (A 3-9)	197	64	82	66	103	77	55	23	31	29	387	27
Smallpox Immunizations (A 15)	1,085	101	337	326	313	121	185	452	234	153	574	158
Diphtheria Immunizations (A 16-18)	1,262	779	793	785	640	479	339	796	200	57	702	98
Typhoid Fever Immunizations (A 19)	169	833	3,465	2,287	2,177	36	13	2,280	756	650	114	1,047
Whooping Cough (A 20)	1,195	772	773	314	619	446	189	862	193	47	370	52
Tetanus (A 21)	1,352	817	952	295	1,771	464	167	1,279	513	47	266	62
VENEREAL DISEASE CONTROL												
Admissions to Medical Service (B 1)	1,099	292	226	66	96	208	143	193	21	42	841	34
Clinic Visits (B 3)	3,303	2,074	1,162	532	663	749	382	524	144	71	4,492	353
Field Visits (B 4)	442	238	221	80	176	393	88	153	75	40	574	10
TUBERCULOSIS CONTROL												
Admissions to Medical Service												
C 1a. Cases	65	29	0	3	15	12	6	28	23	4	34	1
C 1b. Contacts and Suspects	179	83	0	2	255	250	9	4	62	5	47	1
C 1c. Arrested Cases	20	12	0	0	30	35	2	3	7	0	8	0
Admissions to Nursing Service												
C 2a. Cases	91	40	14	21	32	20	19	8	40	2	113	7
C 2b. Contacts and Suspects	958	238	107	37	331	281	105	128	175	38	307	48
C 2c. Arrested Cases	85	24	7	4	28	46	7	2	16	1	60	0

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 COMMUNICABLE DISEASE CONTROL	Walton	Washington	Total to Date
Admissions to Service (A 1)	1	22	5,363
Consultations with physicians (A 2)	0	4	2,640
Field Visits (A 3-9)	2	35	9,585
Smallpox Immunizations (A 15)	263	357	38,624
Diphtheria Immunizations (A 16-18)	242	564	52,440
Typhoid Fever Immunizations (A 19)	826	819	108,065
Whooping Cough (A 20)	241	626	36,253
Tetanus (A 21)	588	689	52,456
VENEREAL DISEASE CONTROL			
Admissions to Medical Service (B 1)	23	77	27,897
Clinic Visits (B 3)	30	180	170,992
Field Visits (B 4)	21	72	44,795
TUBERCULOSIS CONTROL			
Admissions to Medical Service			
C 1a. Cases	3	5	1,125
C 1b. Contacts and Suspects	3	5	9,967
C 1c. Arrested Cases	0	2	1,128
Admissions to Nursing Service			
C 2a. Cases	2	24	3,124
C 2b. Contacts and Suspects	39	61	11,272
C 2c. Arrested Cases	5	6	1,265

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Citrus	Clay	Columbia	Dade	DeSoto
Number of persons X-rayed C. 4a. Miniature Films	23,578	1,228	11,028	2,635	7,107	600	0	0	0	1,959	0	15,857	0
C 4b. Large 14" x 17" Film	1,525	57	1,140	334	50	532	93	43	0	62	95	3,748	97
Clinic Visits (C 5)	412	124	59	403	29	360	30	42	0	25	0	7,559	2
Tuberculin Test (C 6)	403	32	445	106	59	322	120	2	200	14	10	190	26
Field Nursing Visits (C 7)	1,130	25	714	314	158	899	36	15	7	159	217	2,686	46
Office Nursing Visits (C 8)	60	5	319	1	18	903	33	23	2	26	52	0	9
Cases hospitalized (C 9)	35	1	30	12	2	32	5	1	1	1	0	358	0
MATERNITY SERVICE													
Cases admitted to antepartum medical service	578	57	162	91	114	464	38	3	5	40	6	2,035	0
Cases admitted to antepartum nursing service	383	102	210	38	151	493	38	7	16	41	191	2,051	0
Visits by antepartum cases to medical conference	1,611	109	241	217	306	989	80	3	7	89	7	8,341	0
Number of clinic sessions conducted	200	52	37	24	48	70	15	4	0	24	30	407	0
Field nursing visits to antepartum cases (D 5)	741	174	153	138	437	130	22	4	19	74	121	3,516	0
Office nursing visits to antepartum cases (D 6)	378	28	396	21	106	1,027	80	8	29	18	395	895	0
Cases Given nursing serv at del.	3	0	1	0	0	0	0	0	0	1	0	0	0
Cases given postpartum medical examination (D 8)	325	3	47	14	4	42	14	0	0	16	1	882	0
Cases admitted to postpartum nursing service	553	52	143	66	137	151	22	1	9	71	232	2,100	0
Field nursing visits to postpartum cases (D 11)	1,201	64	217	126	269	152	21	8	11	133	859	5,410	0
Office nursing visits to postpartum cases (D 12)	35	0	53	6	27	46	18	0	2	8	12	79	0
Midwives admitted to service for supervision	23	16	7	7	15	6	2	2	1	2	9	23	0

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry
Number of persons X-rayed C 4a. Miniature Films	0	0	6,064	522	0	0	0	535	0	0	0	1,707
C 4b. Large 14" x 17" Film	55	39	2,209	34	88	157	65	56	159	55	188	31
Clinic Visits (C 5)	4	225	1,321	36	3	187	1	428	5	26	152	34
Tuberculin Test (C 6)	23	186	370	14	10	104	4	187	39	2	83	277
Field Nursing Visits (C 7)	108	1,205	1,231	55	43	573	188	102	165	27	157	57
Office Nursing Visits (C 8)	93	125	501	17	29	177	21	10	0	1	162	22
Cases hospitalized (C 9)	2	9	53	0	2	28	1	0	2	4	5	0
MATERNITY SERVICE												
Cases admitted to antepartum med. service	38	50	540	14	18	360	8	6	15	17	0	33
Cases adm. to antepartum nursing service	64	179	158	33	42	420	33	10	23	29	1	9
Visits by antepartum cases to med. conf.	48	172	1,553	26	30	918	13	6	16	20	0	81
Number of clinic sessions conducted	1	22	94	22	25	130	35	0	0	4	0	1
Field nursing visits to antepartum cases (D 5)	69	400	218	22	11	336	39	15	48	57	0	16
Office nursing visits to antepartum cases (D 6)	121	251	406	52	98	1,255	10	0	58	75	1	4
Cases given nursing service at delivery	1	1	0	0	0	1	0	0	0	0	0	0
Cases given postpartum med. exam. (D 8)	2	12	108	1	1	83	3	0	0	1	1	1
Cases adm. to postpartum nursing service	29	160	334	24	6	546	31	0	17	12	5	9
Field nursing visits to postpartum cases (D 11)	55	376	400	38	3	1.042	47	10	34	55	10	14
Office nursing visits to postpartum cases (D 12)	11	14	14	7	5	100	0	21	0	5	2	2
Midwives adm. to serv. for supervision	1	2	12	6	9	23	0	0	3	14	2	3

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Highlands	Hills-borough	Holmes	Indian River	Jackson	Jefferson	Lafayette	Lake	Leon	Levy	Liberty	Madison
Number of persons X-rayed C 4a. Miniature Films	4,429	37,256	0	3,216	0	0	0	0	0	1,463	0	0
C 4b. Large 14" x 17" Film	160	461	94	142	350	47	43	302	661	179	14	129
Clinic Visits (C 5)	160	4.329	121	125	6	0	10	0	117	50	30	451
Tuberculin Test (C 6)	731	798	74	39	401	0	115	217	327	85	22	180
Field Nursing Visits (C 7)	157	2,819	280	319	289	75	37	691	588	292	29	55
Office Nursing Visits (C 8)	181	119	72	42	45	21	12	83	355	11	20	0
Cases hospitalized (C 9)	6	78	2	7	7	1	2	18	22	1	1	9
MATERNITY SERVICE												
Cases admitted to antepartum med. serv.	31	1,271	21	0	266	30	10	88	324	54	28	206
Cases adm. to antepartum nursing service	42	1,515	41	32	359	86	20	169	240	32	31	199
Visits by antepartum cases to med. conf.	52	3,220	23	0	374	46	25	192	874	159	55	653
Number of clinic sessions conducted	23	240	2	0	108	6	0	53	49	46	17	94
Field nursing visits to antepartum cases (D 5)	35	810	68	78	345	48	22	330	183	38	28	9
Office nursing visits to antepartum cases (D 6)	25	4,372	35	10	497	110	21	64	86	47	59	664
Cases given nursing serv. at delivery	0	0	0	0	0	0	0	0	0	0	1	0
Cases given postpartum med. exam. (D 8)	2	479	11	0	91	0	0	40	74	4	21	76
Cases adm. to postpartum nursing serv.	27	964	57	86	313	24	29	223	210	70	28	219
Field nursing visits to postpartum cases (D 11)	59	1,362	107	166	492	43	54	493	436	110	13	220
Office nursing visits to postpartum cases (D 12)	5	268	8	9	29	0	3	16	14	2	3	63
Midwives adm. to serv. for supervision	6	23	10	4	21	14	2	6	17	10	0	16

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Manatee	Marion	Martin Organized 11-1-49	Monroe	Nassau	Okaloosa	Okee-chobee	Orange	Osceola	Palm Beach	Pasco	Pinellas
Number of persons X-rayed C 4a. Miniature Films	10,117	10,691	0	3,137	2,428	17	1,117	15,310	3,051	2,767	5,246	45,500
C 4b. Large 14" x 17" Film	377	528	0	1,025	235	44	75	787	99	773	161	6,117
Clinic Visits (C 5)	403	0	0	95	51	9	77	1,180	34	330	274	1,007
Tuberculin Test (C 6)	4,054	381	0	1,837	13	49	4	152	30	617	78	378
Field Nursing Visits (C 7)	782	689	2	585	484	114	130	1,676	199	1,062	149	965
Office Nursing Visits (C 8)	334	92	0	34	270	5	9	1,020	17	336	231	1,344
Cases hospitalized (C 9)	17	16	0	8	8	2	0	50	2	96	6	29
MATERNITY SERVICE												
Cases adm. to antepartum med. ser.	59	23	0	70	39	16	0	424	13	303	28	413
Cases admitted to antepartum nursing service	86	76	1	82	124	35	24	225	39	300	35	438
Visits by antepartum cases to medical conf.	106	35	0	113	79	19	0	1,214	22	659	49	1,728
Number of clinic sessions conducted	19	17	0	46	50	0	21	83	1	88	22	101
Field nursing visits to antepartum cases (D 5)	116	61	1	77	281	41	23	320	81	234	17	527
Office nursing visits to antepartum cases (D 6)	111	85	0	302	135	42	0	224	35	811	43	1,778
Cases given nurs. serv.at delivery	1	0	0	0	2	2	1	0	0	0	1	0
Cases given postpartum medical examination (D 8)	52	4	0	29	7	4	0	144	2	110	14	195
Cases adm. to postpartum nursing service	89	267	0	98	112	15	29	373	55	194	18	269
Field Nursing visits to postpartum cases (D 11)	151	407	0	154	250	46	113	545	104	372	17	546
Office nursing visits to postpartum cases (D 12)	45	2	0	30	24	3	2	8	14	196	14	198
Midwives adm. to service for supervision	7	22	0	6	12	4	1	7	6	14	1	11

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Polk	Putnam	St. Lucie	Santa Rosa	Sarasota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla
Number of persons X-rayed C 4a. Miniature Films	28,064	4,841	5,923	0	10,890	5,204	2,840	0	0	1,271	0	0
C 4b. Large 14" x17" Film	1,537	182	88	28	437	305	99	331	95	68	1,853	71
Clinic Visits (C 5)	1,575	298	31	6	406	453	32	62	158	10	437	9
Tuberculin Test (C 6)	511	354	15	2	2,512	74	119	320	26	14	337	31
Field Nursing Visits (C 7)	3,088	235	312	88	540	481	147	175	204	73	1,047	45
Office Nursing Visits (C 8)	642	422	108	37	304	0	174	50	139	0	308	84
Cases hospitalized (C 9)	64	19	8	5	13	12	2	11	6	2	16	2
MATERNITY SERVICE												
Cases admitted to antepartum med. serv.	190	79	0	34	37	171	51	123	33	57	155	64
Cases adm. to antepartum nurs. serv.	292	128	85	11	45	198	75	112	50	59	82	49
Visits by antepartum cases to med. conf.	240	144	0	99	58	535	65	314	56	104	478	162
Number of clinic sessions conducted	30	48	0	78	11	48	0	18	14	21	66	26
Field Nursing visits to antepartum Cases (D 5)	282	37	52	25	45	462	41	160	31	99	185	86
Office nursing visits to antepartum cases (D 6)	914	236	218	12	57	188	72	247	109	35	49	19
Cases given nursing serv. at delivery	1	0	0	0	0	0	0	0	0	0	0	0
Cases given postpartum med. exam. (D 8)	56	11	0	3	16	115	14	22	8	4	44	8
Cases adm. to postpartum nurs. serv.	127	71	73	12	32	335	73	104	19	58	104	90
Field nursing visits to postpartum cases (D 11)	324	101	114	14	81	818	112	153	29	86	204	147
Office nursing visits to postpartum cases (D 12)	91	55	21	6	2	47	33	24	14	10	29	10
Midwives adm. to serv. for supervision	35	13	5	3	1	9	9	6	10	2	3	12

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Walton	Wash-ington	Total to Date
Number persons X-rayed			
C 4a. Miniature Films	0	0	277,598
C 4b. Large 14" x 17" Film	0	0	28,809
Clinic Visits (C 5)	41	30	23,874
Tuberculin Test (C 6)	45	66	18,236
Field Nursing Visits (C 7)	83	97	29,400
Office Nursing Visits (C 8)	10	104	9,644
Cases hospitalized (C 9)	0	6	1,138
MATERNITY SERVICE			
Cases admitted to antepartum med. serv.	22	75	9,500
Cases adm. to antepartum nursing serv.	13	95	10,247
Visits by antepartum cases to med. conf.	25	92	26,952
Number of clinic sessions conducted	0	58	2,749
Field Nursing visits to antepartum cases (D 5)	12	81	12,131
Office nursing visits to antepartum cases (D 6)	20	212	17,656
Cases given nursing serv.at delivery	0	0	17
Cases given postpartum med. exam. (D 8)	7	39	3,267
Cases adm. to postpartum nursing serv.	29	122	9,728
Field nursing visits to postpartum cases (D 11)	48	207	19,253
Office nursing viists to postpartum cases (D 12)	6	101	1,872
Midwives adm. to serv. for supervision	7	9	532

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Citrus	Clay	Columbia	Dade	DeSoto
Attend. of midwives at meetings	19	14	23	0	32	14	0	1	0	0	58	163	0
Visits for midwife supervision (D 16)	117	43	101	28	93	99	14	9	3	26	21	65	0
Enrollment in maternity classes (D 20)	91	0	0	0	0	204	0	0	0	0	0	76	0
No. of persons given dental insp.	0	0	0	0	0	0	0	0	0	0	0	0	0
No. of persons given dental cor.	0	0	0	0	0	0	0	0	0	0	0	0	0
INFANT AND PRESCHOOL HYGIENE—INFANT													
Infants adm. to med. serv. (E 1)	489	59	48	120	129	352	40	3	2	63	15	1,907	0
Infants adm. to nurs.serv. (E 2)	702	123	206	136	324	522	44	12	9	73	227	2,435	3
Infant visits to med. serv. and conf. (E 3)	901	110	97	292	294	815	40	4	2	112	15	5,962	0
No. of clinic sessions cond. (E 4 & 11)	343	106	16	46	96	88	24	7	0	50	63	155	7
Field nursing visits (E 5)	714	241	281	357	870	240	29	25	11	158	546	7,722	1
Office nursing visits (E 6)	230	9	151	21	100	883	59	61	3	18	124	379	4
PRESCHOOL													
Child. adm. to med. serv. (E 8)	945	240	302	243	222	467	143	29	2	134	13	1,614	95
Child. adm. to nurs. serv. (E 9)	1,162	401	463	359	812	624	109	19	8	100	840	853	12
Preschool visits to med. serv. and conf.	1,252	399	352	646	379	646	154	33	2	236	13	2,658	96
Field Nursing visits (E 12)	2,393	649	554	759	1,504	93	33	52	6	298	976	1,453	41
Office nursing visits (E 13)	294	134	156	16	201	910	171	36	4	31	4	1,155	14
No. of persons given dent. inspection (E 14)	412	0	234	0	0	0	0	0	0	0	0	0	0
No. of persons given dental cor.	70	0	1	0	0	0	0	0	0	0	0	0	0
Enrollment in inf. and preschool classes	45	0	0	0	0	0	0	0	0	35	0	0	0
SCHOOL HYGIENE													
Insp. by phys. of nurses (F 1)	1,388	2,124	5,713	4,457	1,384	6,566	1,094	300	731	3,503	1,938	112,137	610

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry
Attendance of midwives at meetings	8	7	13	4	0	203	1	2	0	15	0	0
Visits for midwife supervision (D 16)	2	17	80	21	21	107	2	1	3	18	10	21
Enrollment in maternity classes (D 20)	0	34	85	0	0	0	0	16	0	0	0	0
No. of persons given dental insp.	0	29	95	0	0	0	0	0	0	0	0	0
No. of persons given dental corrections	0	0	0	0	0	0	0	0	0	0	0	0
INFANT AND PRESCHOOL HYGIENE												
INFANT												
Infants adm. to med. serv. (E 1)	16	454	261	10	13	140	12	1	3	20	2	31
Infants adm. to nurs. service (E 2)	44	644	473	39	20	787	77	13	62	40	29	17
Infant visits to med. serv. & conf. (E3)	17	1,235	865	12	15	241	14	1	6	31	2	46
No. of clinic sessions cond. (E 4 & 11)	3	171	61	26	52	87	0	2	0	8	10	3
Field Nursing visits (E 5)	66	1,735	789	90	9	1,648	159	30	127	92	48	23
Office nursing visits (E 6)	21	781	369	39	19	326	7	0	9	7	8	0
PRESCHOOL												
Children adm. to med. serv. (E 8)	62	833	1	3	42	157	24	76	2	54	88	102
Children adm. to nurs.serv. (E 9)	89	1,589	159	42	61	1,114	177	23	168	123	83	10
Preschool visits to med. serv. & conf.	73	2,173	1	3	75	258	40	76	2	75	95	135
Field nursing visits (E 12)	121	2,572	226	103	15	2,238	268	22	243	218	133	13
Office nursing visits (E 13)	33	1,544	18	18	85	295	3	0	0	0	13	1
No. of persons given dent. insp. (E 14)	0	0	0	0	0	0	0	0	0	0	0	0
No. of persons given dent. corrections	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment in inf. & preschool classes	0	0	0	0	0	0	0	0	0	0	0	0
SCHOOL HYGIENE												
Insp. by physicians or nurses (F 1)	72	4,210	9,320	238	329	1.583	434	292	383	258	213	703

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Highlands	Hills-borough	Holmes	Indian River	Jackson	Jefferson	Lafayette	Lake	Leon	Levy	Liberty	Madison
Attendance of midwives at meetings	6	45	12	15	43	72	0	0	126	18	10	43
Visits for midwife supervision (D 16)	36	86	25	21	177	76	11	30	96	36	0	94
Enrollment in maternity classes (D 20)	0	0	1	0	0	0	0	0	113	0	0	0
No. of persons given dental insp.	0	434	0	0	0	0	0	0	0	0	0	0
No. of persons given dental corrections	0	570	0	0	0	0	0	0	0	0	0	0
INFANT AND PRESCHOOL HYGIENE												
INFANT												
Infants adm. to med. serv. (E 1)	80	1,324	25	0	123	4	24	46	125	18	24	64
Infants adm. to nurs. service (E 2)	84	1,698	81	108	367	48	76	362	245	89	41	218
Infant visits to med. serv. & conf. (E 3)	180	3,016	41	0	154	8	33	55	156	22	31	76
No. of clinic sessions cond. (E 4 & 11)	24	585	35	17	166	4	4	30	44	38	18	38
Field nursing visits (E 5)	173	1,973	129	291	588	97	128	879	431	178	73	240
Office nursing visits (E 6)	61	1,763	45	28	93	7	71	57	16	6	39	76
PRESCHOOL												
Children adm. to med. serv. (E 8)	278	1,824	79	0	206	69	37	136	131	155	21	2
Children adm. to nurs. serv. (E 9)	104	2,074	146	46	144	125	116	737	455	69	25	7
Preschool visits to med. serv. & conf,	299	3,678	91	0	230	73	37	136	140	161	32	2
Field nursing visits (E 12)	92	2,003	5	125	121	174	188	1,092	334	140	20	5
Office nursing visits (E 13)	55	2,436	254	17	33	0	55	70	46	15	38	3
No. of persons given dent. insp. (E 14)	0	104	71	0	0	0	0	0	0	0	0	0
No. of persons given dent. corrections	0	203	0	0	0	0	0	0	0	0	0	0
Enrollment in inf. & preschool classes	0	0	0	0	0	0	0	0	0	0	0	0
SCHOOL HYGIENE												
Insp. by physicians or nurses (F 1)	967	19,953	27	371	1,516	399	757	3,573	477	675	91	617

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Manatee	Marion	Martin Organized 11-1-49	Monroe	Nassau	Okaloosa	Okee-chobee	Orange	Osceola	Palm Beach	Pasco	Pinellas
Attendance of midwives at meetings	54	83	0	18	50	0	1	36	1	20	11	62
Visits for midwife supervision (D 16)	31	22	0	10	163	11	8	41	12	84	3	0
Enrollment in maternity classes (D 20)	72	0	0	10	0	0	0	0	0	0	0	0
No. of persons given dental insp.	0	0	0	25	0	0	0	5	0	0	0	0
No. of persons given dental corrections	0	0	0	1	0	0	0	7	0	6	0	0
INFANT AND PRESCHOOL HYGIENE												
INFANT												
Infants adm. to med. serv. (E 1)	91	0	0	75	40	22	0	370	57	203	87	692
Infants adm. to nurs. service (E 2)	170	304	1	160	195	13	37	633	114	467	68	972
Infant visits to med. serv. & conf. (E 3)	245	0	2	123	69	23	0	801	74	372	103	1,804
No. of clinic sessions con. (E 4 & 11)	68	24	0	90	96	0	3	114	63	166	68	396
Field Nursing visits (E 5)	273	526	0	303	445	61	158	1,144	361	384	36	2,725
Office nursing visits (E 6)	59	4	0	269	91	23	0	0	73	828	71	2,128
PRESCHOOL												
Children adm. to med. serv. (E 8)	332	81	0	229	181	14	2	1,288	222	294	263	1,209
Children adm. to nurs. serv. (E 9)	195	256	0	290	407	15	12	1,040	304	334	196	1,642
Preschool visits to med. serv. & conf.	704	105	0	259	554	14	2	2,090	296	373	274	2,169
Field nursing visits (E 12)	73	465	0	632	767	19	103	2,139	1,076	127	43	1,606
Office nursing visits (E 13)	153	20	0	756	520	13	4	198	486	1,197	183	2,879
No. of persons given dent. insp. (E 14)	157	0	0	200	262	0	0	95	0	1	115	0
No. of persons given dent. corrections	0	62	0	0	0	0	0	20	0	6	0	0
Enrollment in inf. & preschool classes	0	0	0	0	0	0	0	0	0	0	110	0
SCHOOL HYGIENE												
Insp. by physicians or nurses (F-1)	1,285	873	0	2,705	8,697	667	237	6,248	746	19	467	1,344

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Polk	Putnam	St. Lucie	Santa Rosa	Sarasota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla
Attendance of midwives at meetings	29	19	4	7	6	7	28	48	24	0	0	34
Visits for midwife supervision (D 16)	76	41	8	10	19	92	27	7	39	18	29	19
Enrollment in maternity classes (D 20)	0	0	12	1	0	0	0	0	0	0	0	0
No. of persons given dental insp.	2	2	0	0	0	0	0	0	0	0	6	0
No. of persons given dental corrections	2	0	0	0	0	0	0	0	0	0	0	0
INFANT AND PRESCHOOL HYGIENE												
INFANT												
Infants adm. to med. serv. (E 1)	186	58	4	18	27	254	71	76	56	41	328	56
Infants adm. to nurs. service (E 2)	510	226	116	42	46	419	147	226	84	79	217	144
Infant visits to med. serv. & conf. (E 3)	313	156	4	121	30	560	175	81	57	66	791	101
No. of clinic sessions cond. (E 4 & 11)	66	104	17	93	22	96	14	10	25	21	339	48
Field nursing visits (E 5)	499	127	197	20	174	1,256	192	277	135	147	360	224
Office nursing visits (E 6)	1,161	233	86	114	9	76	139	25	120	7	78	27
PRESCHOOL												
Children adm. to med. serv. (E 8)	229	78	13	32	161	326	164	300	79	75	590	91
Children adm. to nurs. serv. (E 9)	673	224	268	53	60	477	154	517	84	72	344	360
Preschool visits to med. serv. & conf.	272	189	15	140	165	522	250	304	85	100	1,395	283
Field nursing visits (E 12)	612	115	413	48	105	2,162	220	785	30	148	731	510
Office nursing visits (E 13)	1,913	230	151	143	19	209	122	24	148	8	95	92
No. of persons given dent. insp. (E 14)	0	34	0	10	115	0	0	0	0	0	85	0
No. of persons given dent. corrections	0	0	0	1	0	0	0	0	9	0	0	0
Enrollment in inf. & preschool classes	0	0	0	0	0	0	0	0	0	0	0	0
SCHOOL HYGIENE												
Insp. by physicians or nurses (F 1)	460	1.853	151	245	6,414	8,612	1,048	12	198	478	3,268	1,995

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Walton	Washington	Total to Date
Attendance of midwives at meetings	10	26	1,545
Visits for midwife supervision (D 16)	15	29	2,433
Enrollment in maternity classes (D 20)	0	0	**715**
No. of persons given dental insp.	0	0	598
No. of persons given dental corrections	0	0	586
INFANT AND PRESCHOOL HYGIENE			
INFANT			
Infants adm. to med. serv. (E 1)	17	73	8,949
Infants adm. to nurs. service (E 2)	26	124	16,067
Infant visits to med. serv. & conf. (E 3)	25	86	21,083
No. of clinic sessions cond. (E 4 & 11)	1	121	4,492
Field nursing visits (E 5)	28	178	31,421
Office nursing visits (E 6)	6	98	11,615
PRESCHOOL			
Children adm. to med. serv. (E 8)	11	146	15,341
Children adm. to nurs. serv. (E 9)	9	176	21,610
Preschool visits to med. serv. & conf.	14	158	25,483
Field nursing visits (E 12)	8	248	32,467
Office nursing visits (E 13)	4	107	17.832
No. of persons given dent. insp. (E 14)	0	0	1.895
No. of persons given dent. corrections	0	0	372
Enrollment in inf. & preschool classes	0	0	190
SCHOOL HYGIENE			
Insp. by physicians or nurses (F 1)	86	227	237,739

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Citrus	Clay	Columbia	Dade	DeSoto
Examinations by physicians (F 2)	2,052	220	1,340	190	477	2,530	504	257	58	75	1,814	19,057	129
Ind. adm. to nursing service (F 4)	875	131	197	234	82	2,174	17	17	15	82	74	8,461	12
Field nursing visits (F 5)	651	133	446	632	196	602	50	63	92	433	66	3,232	30
Office nursing visits (F 6)	1,235	27	158	239	127	2,674	25	190	19	20	14	21,586	59
No. of persons given dent. insp. (F 7)	3,978	94	66	0	0	585	391	0	58	0	0	8,300	0
No. of persons given dent. cor. (F 8)	907	422	74	0	0	0	328	0	0	0	0	2,506	0
ADULT HYGIENE													
Medical examinations (G 1-3)	2,494	167	1,116	288	83	2,176	139	200	326	453	418	7,238	283
MORBIDITY SERVICE													
Medical visits (H 3)	2,893	30	10	348	23	387	42	0	426	56	1	0	5
Nursing visits (H 5)	596	15	219	71	232	609	67	458	475	195	201	284	18
Admissions to Hospitals (H 7)	2	3	0	0	4	2	12	0	0	12	0	0	0
GENERAL SANITATION													
Approved water supplies installed (J-1a) Private & semi-public	10	8	56	1	2	60	1	0	20	0	4	78	0
J-1b) New public water connections	366	3	0	7	6	1.290	0	0	4	3	62	454	0
(J-1c) Appr. drinking fountains inst.	0	0	8	1	0	0	0	0	0	0	14	0	0
(J-2a) New specification privies inst.	338	16	122	0	1	41	6	2	7	0	103	3	1
(J-2b) Privies restored to sanit. cond.	2	1	40	0	1	151	0	0	3	1	56	1	4
(J-3a) Percolation water table or soil log tests	78	0	95	0	0	7	8	1	39	0	0	13	0
(J-3b) New specif. septic tanks inst.	483	31	348	34	167	2,148	21	13	112	47	268	1,233	18
(J-3c) Septic tanks rest. to san. cond.	48	0	11	0	2	2,310	1	1	88	11	15	306	3
(J-3d) New Public sewer connections	20	2	0	0	3	63	0	0	17	1	54	20	3

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry
Examinations by physicians (F 2)	473	92	825	76	298	501	764	224	41	1,039	58	691
Ind. adm. to nursing service (F 4)	128	152	935	64	372	181	42	202	221	2	111	220
Field nursing visits (F 5)	175	349	637	48	65	790	79	52	16	19	190	23
Office nursing visits (F 6)	55	139	974	265	601	89	7	201	451	1	21	720
No. of persons given dent. insp. (F 7)	0	1,727	0	0	20	1,781	0	0	400	0	0	0
No. of persons given dent. cor. (F 8)	0	979	0	0	18	231	0	0	7	0	0	0
ADULT HYGIENE												
Medical examinations (G 1-3)	273	3,433	3,194	72	326	317	339	54	392	236	481	309
MORBIDITY SERVICE												
Medical visits (H 3)	0	1,570	34	20	461	20	9	146	79	441	6	99
Nursing visits (H 5)	58	1,020	180	129	980	266	582	21	459	293	81	43
Admission to Hospitals (H 7)	0	5	0	2	38	24	2	0	0	10	0	3
GENERAL SANITATION												
Approved water supplies installed J-1a Private & Semi-public	0	195	30	13	0	33	0	0	5	1	0	0
(J-1b) New public water connections	50	1,570	339	1	38	234	0	0	23	0	19	0
(J-1c) Appr. drinking fountains inst.	5	0	0	0	0	6	0	0	0	0	0	0
(J-2a) New specification privies inst.	53	49	1	5	4	187	12	0	23	26	2	0
(J-2b) Privies restored to sanit. cond.	5	35	1	0	2	225	0	0	6	6	7	0
(J-3a) Percolation water table or soil log tests	0	1,668	0	3	0	12	0	3	11	4	0	1
(J-3b) New specif. septic tanks inst.	62	2,906	456	18	8	73	47	3	34	26	20	7
(J-3c) Septic tanks rest. to san. cond.	40	77	7	4	2	30	36	1	1	6	1	1
(J-3d) New public sewer connections	1	1	122	0	22	171	0	0	18	0	14	0

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Highlands	Hills-borough	Holmes	Indian River	Jackson	Jefferson	Lafayette	Lake	Leon	Levy	Liberty	Madison
Examinations by physicians (F 2)	1,788	8,732	631	451	804	514	426	0	242	370	106	612
Ind. adm. to nursing service (F 4)	339	2,752	326	425	198	31	128	657	251	22	59	94
Field nursing visits (F 5)	235	2,466	431	691	312	90	120	645	264	33	59	429
Office nursing visits (F 6)	245	2,711	333	112	134	4	110	418	169	23	74	237
No. of persons given dent. insp. (F 7)	1	1,905	0	1,175	0	0	0	0	0	1	176	151
No. of persons given dent. cor. (F 8)	0	4,965	0	241	0	0	0	0	0	0	258	0
ADULT HYGIENE												
Medical examinations (G 1-3)	425	24,091	80	0	685	191	91	19	2,050	245	60	317
MORBIDITY SERVICE												
Medical visits (H 3)	167	1,057	299	8	120	92	0	0	22	180	51	53
Nursing visits (H 5)	169	1,692	374	207	81	174	1	130	225	113	399	69
Admissions to Hospitals (H 7)	0	0	7	7	0	0	0	0	0	0	1	1
GENERAL SANITATION												
Approved water supplies installed (J-1a) Private & semi-public	29	350	35	0	0	21	18	80	4	33	0	13
(J-1b) New public water connections	6	1,941	17	0	0	28	2	18	412	1	0	6
(J-1c) Appr. drinking fountains inst.	0	0	1	0	0	10	0	1	14	0	0	13
(J-2a) New specification privies inst.	0	97	12	22	50	17	44	7	1	12	0	38
(J-2b) Privvies restored to sanit. cond.	12	26	7	0	0	10	5	10	2	1	3	27
(J-3a) Percolation water table or soil log tests	0	35	6	0	8	13	8	15	123	5	0	40
(J-3b) New specif. septic tanks inst.	33	1,905	17	8	12	14	30	309	188	65	5	63
(J-3c) Septic tanks rest. to san. cond.	6	39	3	2	2	2	6	15	6	16	4	16
(J-3d) New public sewer connections	29	545	10	0	1	16	0	0	276	4	0	5

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Manatee	Marion	Martin Organized 11-1-49	Monroe	Nassau	Okaloosa	Okee-chobee	Orange	Osceola	Palm Beach	Pasco	Pinellas
Examinations by physicians (F 2)	324	231	0	104	1,886	298	237	1,555	380	2,156	215	3,921
Ind. adm. to nursing service (F 4)	390	167	0	356	496	20	57	1,533	626	215	511	2,011
Field nursing visits (F 5)	540	452	0	118	601	45	216	2,345	188	73	264	5,355
Office nursing visits (F 6)	215	273	0	561	2,526	32	14	2,142	942	1,072	369	3,919
No. of persons given dent. insp. (F 7)	170	2	0	1,378	265	0	0	7,654	0	303	20	11,289
No. of persons given dent. cor. (F 8)	0	23	0	278	0	0	0	994	0	44	1	1,760
ADULT HYGIENE												
Medical examinations (G 1-3)	1,381	1,344	0	1,171	536	477	189	1,405	146	1,438	533	12,219
MORBIDITY SERVICE												
Medical visits (H 3)	25	0	0	132	50	378	0	202	2	2,191	578	65
Nursing visits (H 5)	275	7	3	529	269	381	146	382	49	2,491	411	597
Admissions to Hospitals (H 7)	8	0	0	3	9	5	1	3	0	220	17	27
GENERAL SANITATION												
Approved water supplies installed												
(J-1a) Private & semi-public	0	122	0	0	11	0	0	43	69	42	3	3
(J-1b) New public water connections	203	187	0	19	31	0	43	58	7	8	4	2
(J-1c) Appr. drinking fountains inst.	0	9	0	0	0	0	1	4	0	3	0	0
(J-2a) New specification privies inst.	1	58	0	4	17	4	2	28	6	17	10	38
(J-2b) Privies restored to sanit. cond.	1	82	0	0	11	3	0	15	4	41	47	11
(J-3a) Percolation water table or soil log tests	0	13	0	0	1	4	0	70	8	6	3	151
(J 3b) New specif. septic tanks inst.	636	201	0	75	60	121	12	1,071	166	843	153	1,315
(J-3c) Septic tanks rest. to san. cond.	9	2	0	12	1	4	3	28	3	48	25	48
(J 3d) New public sewer connections	223	95	0	0	7	7	0	8	31	7	0	16

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Polk	Putnam	St. Lucie	Santa Rosa	Sarasota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla
Examinations by physicians (F 2)	873	746	639	126	885	2,238	444	999	218	125	2,829	262
Ind. adm. to nursing service (F 4)	117	458	55	181	469	203	247	72	59	89	1,154	106
Field nursing visits (F 5)	118	504	88	73	999	2,377	365	146	156	198	1,924	111
Office nursing visits (F 6)	568	1,046	87	299	161	205	1,104	4	1,488	13	4,801	189
No. of persons given dent. insp. (F 7)	0	52	0	226	46	0	0	0	48	0	224	171
No. of persons given dent. cor (F 8)	0	0	0	164	0	0	0	0	6	0	5	557
ADULT HYGIENE												
Medical examinations (G 1-3)	56	426	0	171	47	236	593	196	123	83	1,957	178
MORBIDITY SERVICE												
Medical visits (H 3)	294	277	1	266	77	77	469	0	73	173	148	799
Nursing visits (H 5)	1,937	732	49	193	36	58	236	6	254	326	679	745
Admissions to hospitals (H 7)	0	0	25	4	17	2	0	0	1	1	18	0
GENERAL SANITATION												
Approved water supplies installed												
(J-1a) Private & semi-public	46	10	0	0	125	34	5	8	27	10	117	4
(J-1b) New public water connections	552	3	0	68	411	93	5	0	41	12	570	0
(J-1c) Appr. drinking fountains inst.	2	0	0	0	1	5	12	0	0	0	23	0
(J-2a) New specification privies inst.	61	15	1	3	5	30	22	1	84	59	0	4
(J-2b) Privies restored to sanit. cond.	7	6	2	1	5	7	79	0	20	6	1	5
(J-3a) Percolation water table or soil log tests	35	46	1	14	3	41	3	15	10	0	6	0
(J-3b) New specif. septic tanks inst.	656	40	125	37	404	119	45	15	78	51	663	16
(J-3c) Septic tanks rest. to san. cond.	27	4	6	1	50	19	30	2	13	1	23	3
(J-3d) New public sewer connections	194	6	1	76	109	36	2	1	24	21	309	0

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Walton	Wash-ington	Total to Date
Examinations by physicians (F 2)	345	764	71,261
Ind. adm. to nursing service (F 4)	34	144	30,053
Field nursing visits (F 5)	55	319	32,474
Office nursing visits (F 6)	18	102	56,617
No. of persons given dent. insp. (F 7)	100	0	42,757
No. of persons given dent. cor. (F 8)	0	0	14,768
ADULT HYGIENE			
Medical examinations (G 1-3)	230	381	78,577
MORBIDITY SERVICE			
Medical visits (H 3)	246	133	15,811
Nursing visits (H 5)	113	45	22,135
Admissions to Hospitals (H 7)	0	9	503
GENERAL SANITATION			
Approved water supplies installed			
(J-1a) Private & semi-public	15	13	1,807
(J-1b) New public water connections	105	11	9,333
(J-1c) Appr. drinking fountains inst.	32	7	172
(J-2a) New specification privies inst.	112	45	1,929
(J-2b) Privies restored to sanit. cond.	23	3	1,030
(J-3a) Percolation water table or soil log tests	1	3	2,630
(J-3b) New specif. septic tanks inst.	169	24	18,327
(J-3c) Septic tanks rest. to san. cond.	37	1	3,519
(J-3d) New public sewer connections	52	2	2,645

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Citrus	Clay	Columbia	Dade	DeSoto
GENERAL SANITATION (CON'T.)													
Field visits (J 4-11)	4270	1,021	4,905	240	1,488	4,683	455	466	525	638	1,310	58,716	1,156
PROTECTION OF FOOD AND MILK													
Food-handling est. reg. for super (K 1)	179	33	334	51	190	516	27	24	31	86	73	4,776	65
Field visits to food-handling est. (K-2)	1,463	592	1,106	325	992	1,705	335	145	261	781	600	32,666	397
Dairy Farms Reg. for superv. (K 3)	13	1	64	1	12	1	11	7	11	6	5	92	4
Field visits to Dairy Farms (K 4)	345	1	231	21	132	24	206	51	58	58	160	1,607	82
Milk Plants reg. for superv. (K 5)	6	0	6	1	2	10	0	2	1	2	5	69	2
Field visits to milk plants (K 6)	253	0	508	3	5	158	0	16	5	23	158	2,583	37
LABORATORY													
Specimens examined (L 1-20)	17,519	910	8,740	2,056	1,293	10.573	1,603	1,027	789	1,753	5.095	167.035	1,172
MOSQUITO CONTROL													
Sanitary surveys and field visits (M 1)	743	10	2,012	0	2	0	265	0	1	0	0	0	0
Buildings mosquito proofed (M 2)	407	14	0	9	0	0	0	0	0	0	0	0	0
Drainage—linear feet completed (M 3)	46,190	2,370	120,500	0	0	0	0	0	0	0	0	0	0
Permanent Lining linear feet (M 4)	404	0	0	0	0	0	0	0	0	0	0	0	0
Mosquito breeding places eliminated	236	0	0	0	0	3	0	0	1	0	0	0	0
Breeding places controlled by treating	1,045	0	2	5	0	0	1	0	0	0	0	0	0
Structures sprayed with D.D.T. (M 8)	58	15	1,500	0	5	0	3,384	0	0	0	0	0	0
RODENT CONTROL													
Establishments rat-proofed (R 2)	4	1	0	3	0	3	0	0	0	0	0	97	0
Est. found free after proofing (R 3)	0	0	0	0	0	2	0	0	0	0	0	2	0
Est. trapped and/or poisoned (R 4)	3	6	222	2	0	7	0	0	0	0	0	7,491	1
Surveys and/or field visits (R 7)	9	17	233	19	12	17	0	1	0	0	0	10.766	29

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry
GENERAL SANITATION												
Field visits (J 4-11)	887	8,935	5,970	227	137	2,089	902	119	1,177	1,023	682	270
PROTECTION OF FOOD AND MILK												
Food-handling est. reg. for superv. (K 1)	56	717	190	31	65	49	7	13	118	40	107	53
Field visits to food-handling est. (K 2)	743	1,523	750	102	325	279	261	148	868	693	625	391
Dairy Farms Reg. for Superv. (K 3)	1	4	100	1	1	15	1	10	3	4	6	9
Field visits to Dairy Farms (K 4)	27	4	743	6	2	167	15	150	35	22	43	118
Milk Plants reg. for superv. (K 5)	1	2	10	0	0	2	1	1	0	3	4	0
Field visits to milk plants (K 6)	27	2	234	0	0	39	15	2	0	17	82	0
LABORATORY												
Specimens examined (L 1-20)	1,344	21,961	21,925	966	1,543	5,665	1,435	510	1,662	3,068	1,647	1,445
MOSQUITO CONTROL												
Sanitary Surveys and field visits (M 1)	25	6	901	0	1,073	82	0	0	0	0	0	0
Buildings mosquito proofed (M 2)	0	1,715	0	0	0	95	0	0	0	0	0	0
Drainage—linear feet completed (M 3)	0	300	0	0	9,992	500	0	0	0	0	0	0
Permanent lining linear feet (M 4)	0	4	0	0	20	0	0	0	0	0	0	0
Mosquito breeding places eliminated	0	0	0	0	21	6	0	0	0	0	0	0
Breeding places controlled by treating	0	0	1	0	0	1	0	0	0	0	0	0
Structures sprayed with D.D.T. (M 8)	3,712	0	1,785	0	625	206	0	0	0	6.403	0	0
RODENT CONTROL												
Establishments rat-proofed (R 2)	0	13	78	0	0	0	0	0	0	0	0	0
Est. found free after proofing (R 3)	0	0	25	0	0	0	0	0	0	0	0	0
Est. trapped and/or poisoned (R 4)	0	0	10.941	0	0	90	3	0	0	0	7	0
Surveys and/or field visits (R 7)	0	1	984	0	0	3.366	0	0	0	0	4	0

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Highlands	Hillsborough	Holmes	Indian River	Jackson	Jefferson	Lafayette	Lake	Leon	Levy	Liberty	Madison
GENERAL SANITATION												
Field visits (J 4-11)	964	20,567	265	622	266	688	342	1,636	9.471	932	158	962
PROTECTION OF FOOD AND MILK												
Food-handling est. reg. for super. (K 1)	126	2,676	64	75	53	27	21	144	184	20	14	80
Field visits to food-handling est. (K 2)	1,166	11,242	103	447	273	136	261	602	1,539	182	70	496
Dairy Farms Reg. for Superv. (K 3)	3	88	28	5	66	16	0	9	22	2	1	8
Field visits to Dairy Farms (K 4)	40	1,711	173	87	583	77	0	45	258	2	10	447
Milk Plants reg. for superv. (K 5)	5	20	2	0	1	1	0	7	6	0	0	1
Field visits to milk plants (K 6)	316	900	5	0	37	5	0	55	113	0	0	18
LABORATORY												
Specimens examined (L 1-20)	1,943	91,241	2,478	1,575	9,588	1,368	1.273	2,790	16.350	4.170	674	4,177
MOSQUITO CONTROL												
Sanitary Surveys and field visits (M 1)	1	4	0	0	5,087	1,586	0	3,874	797	132	10	126
Buildings mosquito proofed (M 2)	0	0	0	0	0	2	0	106	0	0	0	1,500
Drainage—linear feet completed (M 3)	0	0	20	0	0	0	0	0	10	0	0	0
Permanent lining linear feet (M 4)	0	0	0	0	0	0	0	0	0	0	0	0
Mosquito breeding places eliminated	0	18	1	0	0	0	0	0	0	56	0	0
Breeding places controlled by treating	0	0	0	0	0	1½	0	2,350	0	0	0	0
Structures sprayed with D.D.T. (M 8)	0	17	6	0	4,822	1,493	0	2,515	1,924	0	0	7,876
RODENT CONTROL												
Establishments rat-proofed (R-2)	0	183	0	0	0	0	0	0	72	0	0	0
Establishments found free after proofing (R 3)	0	183	0	0	0	0	0	0	71	0	0	0
Est. trapped and/or poisoned (R 4)	0	2,151	3	0	0	33	0	14	238	1	0	10,211
Surveys and/or field visits (R 7)	3	6,016	0	0	0	36	0	14	734	6	0	204

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Manatee	Marion	Martin Organized 11-1-49	Monroe	Nassau	Okaloosa	Okeechobee	Orange	Osceola	Palm Beach	Pasco	Pinellas
GENERAL SANITATION												
Field visits (J 4-11)	3,197	2,739	0	958	770	978	488	6,120	1,229	4,266	1,487	7,427
PROTECTION OF FOOD AND MILK												
Food-handling est. reg. for super. (K 1)	111	156	0	84	83	56	28	224	99	412	48	1,070
Field visits to food handling est. (K 2)	148	1,517	0	664	432	209	220	3,225	1,268	1,049	397	2,141
Dairy Farms Reg. for Superv. (K 3)	19	20	0	1	4	7	2	3	17	44	4	48
Field visits to Dairy Farms (K 4)	515	162	0	1	4	16	38	23	192	225	52	987
Milk Plants reg. for superv. (K 5)	3	6	0	6	0	1	3	8	1	25	1	18
Field visits to milk plants (K 6)	142	69	0	41	0	13	21	553	1	216	19	892
LABORATORY												
Specimens examined (L 1-20)	5,600	6,558	2	4,442	3,354	2,727	1,678	8.891	920	8,579	1,988	30,358
MOSQUITO CONTROL												
Sanitary Surveys and field visits (M 1)	0	21,879	0	19,265	9	1	0	9	2	2	3	14
Buildings mosquito proofed (M 2)	0	0	0	0	22	0	0	1	2	2	0	0
Drainage—linear feet completed (M 3)	0	0	0	3	0	1	0	0	2,800	0	0	0
Permanent lining linear feet (M 4)	0	255	0	0	0	0	0	0	0	0	0	0
Mosquito breeding places eliminated	0	3,287	0	1,125	0	0	0	0	0	2	5	0
Breeding places controlled by treating	0	0	0	0	0	0	0	0	0	1	0	0
Structures sprayed with D.D.T. (M 8)	0	0	0	0	0	8	0	0	20.632	0	3	0
RODENT CONTROL												
Establishments rat-proofed (R 2)	0	0	0	0	2	0	1	0	0	0	2	27
Est. found free after proofing (R 3)	0	3	0	0	0	0	0	0	0	0	0	23
Est. trapped and/or poisoned (R 4)	0	1	0	0	0	4	0	0	0	0	2	4,406
Surveys and/or field visits (R 7)	0	2	0	0	0	1	0	2	1	2	2	1,259

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Polk	Putnam	St. Lucie	Santa Rosa	Sarsota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla
GENERAL SANITATION (CON'T.)												
Field visits (J 4-11)	4,558	466	2,239	281	2,363	2,089	508	905	1,812	1,039	3,063	333
PROTECTION OF FOOD AND MILK												
Food-handling est. req. for super (K 1)	927	86	125	87	31	142	101	134	48	39	643	50
Field visits to food-handling est. (K-2)	2,455	154	484	927	179	826	728	623	381	214	5,683	132
Dairy Farms Reg. for Superv. (K 3)	60	33	10	20	7	4	3	11	2	1	29	1
Field visits to Dairy Farms (K 4)	430	114	116	108	199	15	58	95	56	7	334	2
Milk Plants reg. for superv. (K 5)	14	3	6	0	8	2	0	1	0	3	11	0
Field visits to milk plants (K 6)	245	26	52	0	178	20	0	40	0	26	110	0
LABORATORY												
Specimens examined (L 1-20)	11,722	5,603	3.176	2,641	3,344	3.413	2.806	5,409	1.084	1,219	8,930	1,137
MOSQUITO CONTROL												
Sanitary Surveys and field visits (M 1)	2	0	0	0	0	120	1	0	1,169	2	69	0
Buildings mosquito proofed (M 2)	0	0	0	0	0	0	0	0	0	27	46	0
Drainage—linear feet completed (M3)	0	0	0	0	0	0	0	0	0	0	0	0
Permanent lining linear feet (M 4)	0	0	0	0	0	0	0	0	0	0	0	0
Mosquito breeding places eliminated	0	0	0	0	0	0	0	0	0	0	37	0
Breeding places controlled by treating	0	0	0	0	0	0	0	0	6½	1	0	0
Structures sprayed with D.D.T. (M 8)	2,128	0	0	3.525	0	204	1,374	0	2,995	0	3	7
RODENT CONTROL												
Establishments rat-proofed (R 2)	0	0	0	0	0	1	0	0	0	0	22	0
Est. found free after proofing (R 3)	0	0	0	0	0	0	0	0	0	0	0	0
Est. trapped and/or poisoned (R 4)	0	0	0	0	1	.10	0	0	130	0	18	0
Surveys and/or field visits (R 7)	2	0	0	0	2	41	0	1	32	0	88	0

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949	Walton	Washington	Total to Date
GENERAL SANITATION			
Field visits (J4-11)	716	295	189,790
PROTECTION OF FOOD AND MILK			
Food-handling est. reg. for super (K 1)	47	54	16,260
Field visits to food handling est. (K 2)	184	299	89,132
Dairy Farms reg. for superv. (K 3)	43	37	1,061
Field visits to Dairy Farms (K 4)	292	171	11,983
Milk Plants reg. for superv. (K 5)	5	3	301
Field visits to milk plants (K 6)	15	25	8,320
LABORATORY			
Specimens examined (L 1-20)	3,946	4,119	554,013
MOSQUITO CONTROL			
Sanitary Surveys and field visits (M 1)	6	5	59,295
Buildings mosquito proofed (M 2)	0	3	3,951
Drainage—linear feet completed (M 3)	0	0	182,686
Permanent lining linear feet (M 4)	0	0	683
Mosquito breeding places elminated	0	0	4,798
Breeding places controlled by treating	0	0	3,415
Structures sprayed with D.D.T. (M 8)	59	1.680	68,964
RODENT CONTROL			
Establishments rat-proofed (R 2)	0	0	509
Est. found free after proofing (R 3)	0	0	309
Est. trapped and/or poisoned (R 4)	0	132	36,128
Surveys and/or field visits (R 7)	11	0	23,917

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 GENERAL ADMINISTRATION	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Citrus	Clay	Columbia	Dade	DeSoto
Visits in the interest of V.S. (X 1)	158	20	163	13	57	21	0	21	4	5	31	212	7
Lectures, talks and motion picture showings (X 2a)	97	17	143	39	33	155	6	38	15	94	16	902	31
Radio talks delivered (X 3)	2	9	55	0	0	1	0	0	0	0	0	6	0
News articles published (X 4)	38	5	81	26	4	199	1	5	6	31	0	28	11
Exhibits and displays (X 5)	6	1	1	0	0	1	30	0	0	0	0	0	0
News letters and reports (X 6)	108	241	68	49	171	612	32	77	31	60	355	33,819	49

FLORIDA 1949 GENERAL ADMINISTRATION	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry
Visits in the interest of V.S. (X 1)	41	0	106	12	45	60	12	6	22	30	55	27
Lectures, talks and motion picture showings (X 2a)	65	38	301	17	104	111	14	6	17	14	25	14
Radio talks delivered (X 3)	0	0	30	0	0	26	0	0	0	0	0	0
News articles published (X 4)	0	27	42	0	49	18	8	13	31	12	11	42
Exhibits and displays (X 5)	0	0	3	0	0	3	0	0	2	0	3	0
News letters and reports (X 6)	443	36	883	48	72	53	183	44	70	535	104	47

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 GENERAL ADMINISTRATION	Highlands	Hills-borough	Holmes	Indian River	Jackson	Jefferson	Lafayette	Lake	Leon	Levy	Liberty	Madison
Visits in the interest of V. S. (X 1)	15	16	3	1	45	36	12	21	137	96	3	52
Lectures, talks and motion picture showings (X 2a)	54	583	16	45	218	65	190	97	81	25	13	223
Radio talks delivered (X 3)	0	5	0	0	4	0	0	77	2	0	0	0
News articles published (X 4)	49	83	29	7	44	14	9	0	132	11	0	66
Exhibits and displays (X 5)	0	53	0	0	40	6	0	0	15	0	0	1
News letters and reports (X 6)	188	7,835	50	31	153	85	70	230	96	116	42	4,675

FLORIDA 1949 GENERAL ADMINISTRATION	Manatee	Marion	Martin Organized 11-1-49	Monroe	Nassau	Okaloosa	Okee-chobee	Orange	Osceola	Palm Beach	Pasco	Pinellas
Visits in the interest of V.S. (X 1)	86	4	0	59	129	6	18	43	17	31	67	0
Lectures, talks and motion picture showings (X 2a)	388	56	0	66	110	8	36	158	43	260	25	326
Radio talks delivered (X 3)	3	2	0	0	0	1	0	3	0	0	0	6
News articles published (X 4)	361	13	0	43	78	13	8	61	0	190	13	83
Exhibits and displays (X 5)	0	0	0	0	142	0	0	1	0	0	0	0
News letters and reports (X 6)	252	914	0	389	613	17	223	3,176	226	187	315	2,157

TABLE 1 — MAJOR ACTIVITIES (Continued)

FLORIDA 1949 GENERAL ADMINISTRATION	Polk	Putnam	St. Lucie	Santa Rosa	Sarasota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla
Visits in the interest of V.S. (X 1)	525	28	11	1	21	37	0	29	60	0	0	24
Lectures, talks and motion picture showings (X 2a)	438	119	36	47	520	195	122	249	44	16	112	0
Radio talks delivered (X 3)	2	0	18	6	2	1	0	0	0	0	6	0
News articles published (X 4)	53	143	107	4	59	44	29	28	12	8	32	2
Exhibits and displays (X 5)	2	3	0	0	3	0	6	3	0	0	0	0
News letters and reports (X 6)	2,910	219	194	50	211	3,521	176	66	215	65	63	47

FLORIDA 1949 GENERAL ADMINISTRATION	Walton	Wash-ington	Total to Date
Visits in the interest of V.S. (X 1)	3	59	2,823
Lectures, talks and motion picture Showings (X 2a)	109	72	7,477
Radio talks delivered (X 3)	0	0	267
News articles published (X 4)	0	6	2,522
Exhibits and displays (X 5)	0	0	325
News letters and reports (X 6)	67	340	68,374

FIELD TECHNICAL STAFF

L. L. Parks, M.D., M.P.H., Director

The Field Technical Staff completed its third year of operation on December 31, 1949. The staff consists of two Record Consultants, two Nurses, two Sanitarians, a Secretary, a Milk Consultant, and the Director. This staff, in addition to state and Federal funds, received financial support and guidance from the Commonwealth Fund of New York. The Commonwealth Fund is giving the financial support because of its interest in the training and education of health workers.

The purpose and the accomplishments of the Field Technical Staff during the past year may be summarized in the following statements:

Emphasis is placed upon the keeping of proper records in health departments. Special emphasis during the year has been placed on the keeping of sanitation records, inasmuch as these records were somewhat neglected in many of the counties. In keeping records, practical aspects have been kept in mind. There is no purpose in keeping records unless they are used.

A revised Monthly Report of Activities was prepared during the year with the assistance of other Bureaus of the State Board of Health and a committee of county health officers. This activity report has been adopted and was put into effect January 1, 1950.

Efforts were made to standardize records throughout the state in order that comparison could be made of activities from county to county. It is believed that much progress has been made along this line of activity since the Field Technical Staff was organized three years ago.

Record Manuals have been assembled and distributed to counties that have not previously had them available.

There has been closer coordination of the members of the Field Technical Staff with other workers of the State Board of Health. It is customary to call upon the other bureaus before going into a county to learn if help is desired in some of their problems while visiting in the county. The Field Technical Staff has attempted, whenever possible, to take care of certain services when called upon by other bureaus. This has been particularly true in the Bureau of Tuberculosis Control. It is felt that considerable accomplishments have been brought about in helping that bureau keep up its Central Case Register. The Field Technical Staff has continued to act as a liaison department between the State Board of Health and the county health departments.

Studies were made on diphtheria immunizations which showed that too much emphasis is being placed on the immunization of children in the older age group. More emphasis should be placed upon giving immunizations to children in 1st, 2nd, and 3rd years of life—particularly the 1st year.

Three district meetings were held in West Florida with representatives of State Home Demonstration Agent's office and the State Farm Agent's office. The purpose of these meetings was to discuss health problems, programs, and how various agencies might better work together.

In-Service Training—Members of the Field Technical Staff have assisted in the field training station in Gainesville. Considerable time has been spent instructing new personnel in the counties. All members of the staff have taken part in this service,—instructing clerks, sanitarians, health officers, and nurses, especially those persons who had had no previous public health training. A one-week's short course was arranged at the University in Gainesville for all county sanitarians of the state. This course proved to be most helpful to all persons taking it. The Field Technical Staff also helped to arrange for college courses and extension courses at the Universities for the sanitarians to continue their training on their own spare time.

In August, 1949, a Milk Consultant was added to the Field Technical Staff. This consultant has followed the same general policies that were established three years ago for the Field Technical taff. He has acted as a consultant in helping the individual sanitarians do a better job in the way of inspecting dairies and milk plants. Every effort has been made to coordinate the milk inspection service of the State Board of Health with that of other state agencies. The number of dairies in the state is increasing rapidly in every section of the state, creating the necessity for more time to be devoted to quality control of milk production. The need for more personnel adequately to supervise this growing industry is being felt throughout the state. The desire and necessity of shipping milk from one section of the state to another has increased. This condition creates a greater need for a uniform ordinance and uniform enforcement of such an ordinance. Much time was devoted to this phase of the work. Several milk ordinances have been passed by city commissions based chiefly upon the U. S. Public Health Service Milk Ordinance and Code, the responsibility of the enforcement being delegated to the county health departments concerned.

Less milk is being sold raw than in former years. In many counties, where there is no local ordinance requiring pasteurization of milk, it is all being pasteurized. This is an indication that consumers prefer Grade "A" pasteurized milk.

Emphasis has been placed on more frequent sampling of milk, both raw wholesale and pasteurized retail, and making the results of these laboratory tests available to the dairymen concerned. Where this has been done, a conscientious effort has been made by the dairymen, as a whole, to correct undesirable conditions and practices, resulting in a higher quality product reaching the consumer.

Consultations have been held with interested personnel of the University of Florida, the Florida Dairy Industry, and the State Department of Agriculture, Dairy Division. Joint inspections of dairies and milk plants have been conducted with members of the State Department of Agriculture, along with the local sanitarians of the health departments concerned.

All these activities are bringing about a feeling of closer cooperation of all personnel involved, resulting in production, processing, and sale of higher quality dairy products.

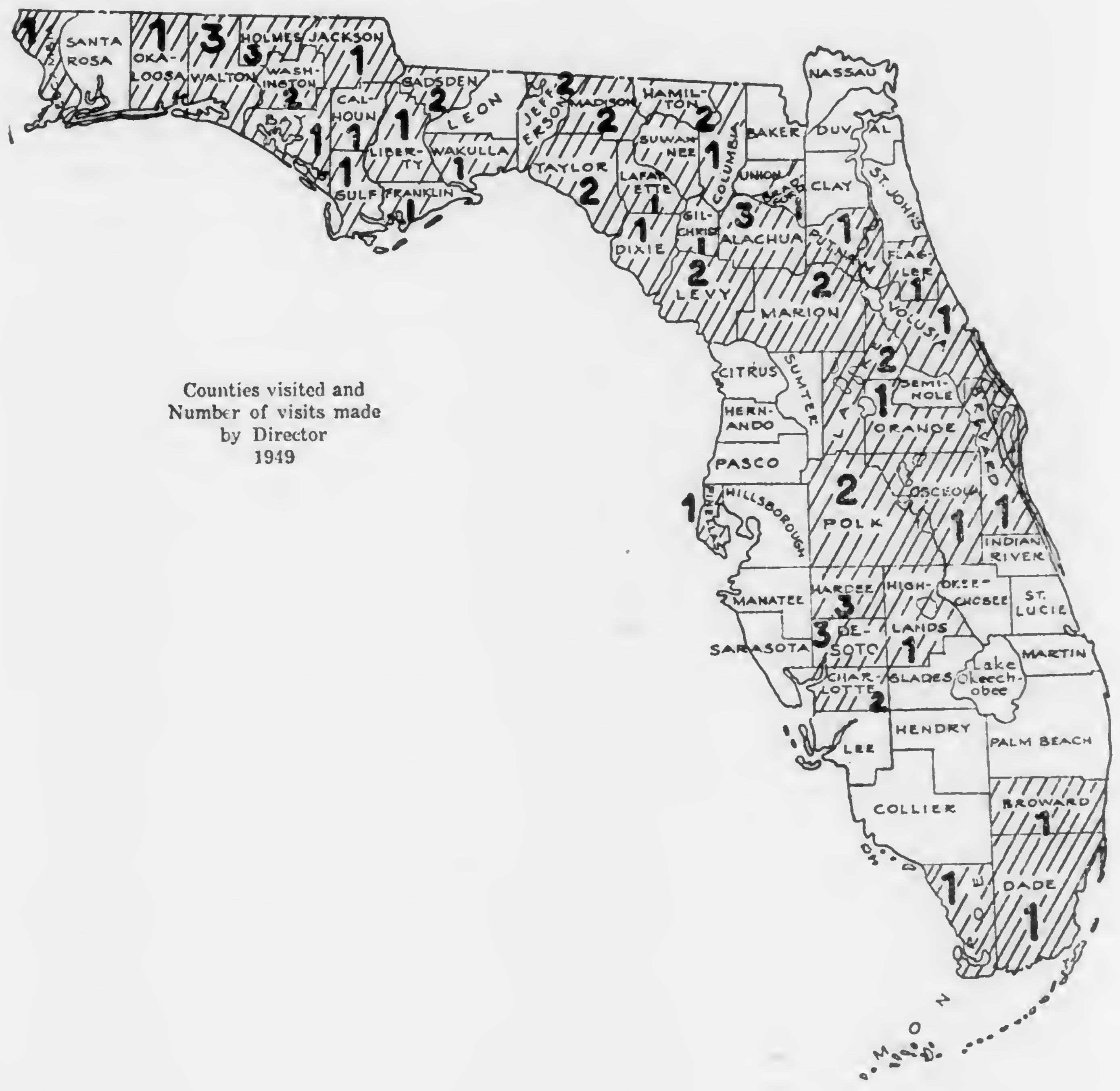
It is difficult for this staff to show its activities for the past year in a statistical manner, inasmuch as this department acts almost entirely in a consultation capacity. A quotation from the annual report of the Commonwealth Fund for 1949, is as follows: ". . . . In Florida, Louisiana, Mississippi, Oklahoma, and Tennessee, however, a number of these activities continued during the year. The field unit (Field Technical Staff) in Florida's State Board of Health is proving even more useful than its predecessors in Tennessee and Mississippi, because local health services are being expanded so rapidly." This statement probably explains the whole purpose of the Field Technical Staff, in that it has attempted to coordinate the services of the state and the county health departments and, at the same time, give special in-service training in the field to the new health workers and recently organized health departments.

The following table gives a general summary of the wide coverages of the services of the Field Technical Staff.

VISITS MADE BY MEMBERS OF THE STAFF

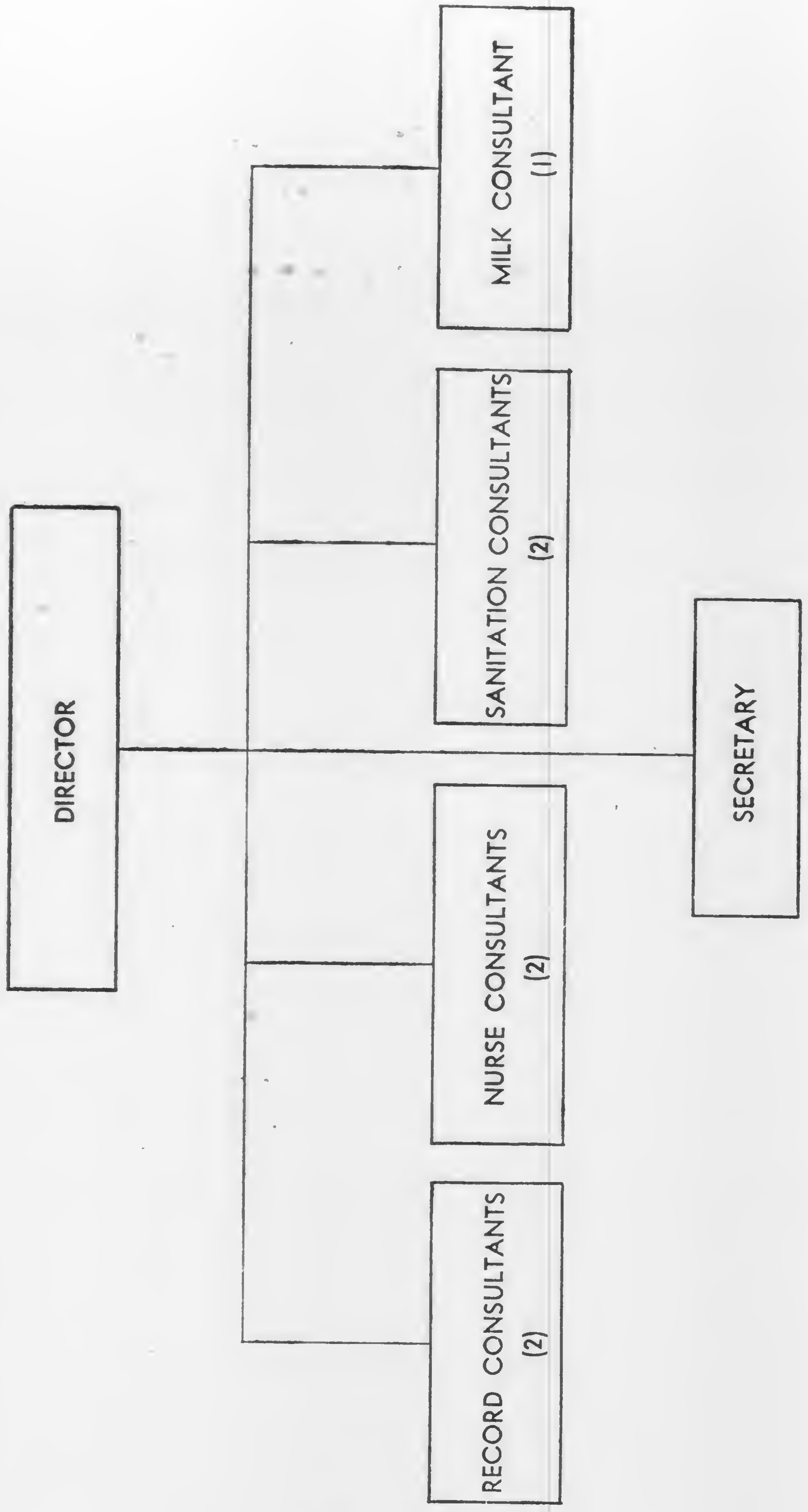
Visitor	Number of Counties Visited	Number of Visits
Record Consultants	46	60
Nurse Consultants	36	61
Sanitation Consultants	62	122
Milk Consultants	22	28
Director	44	66

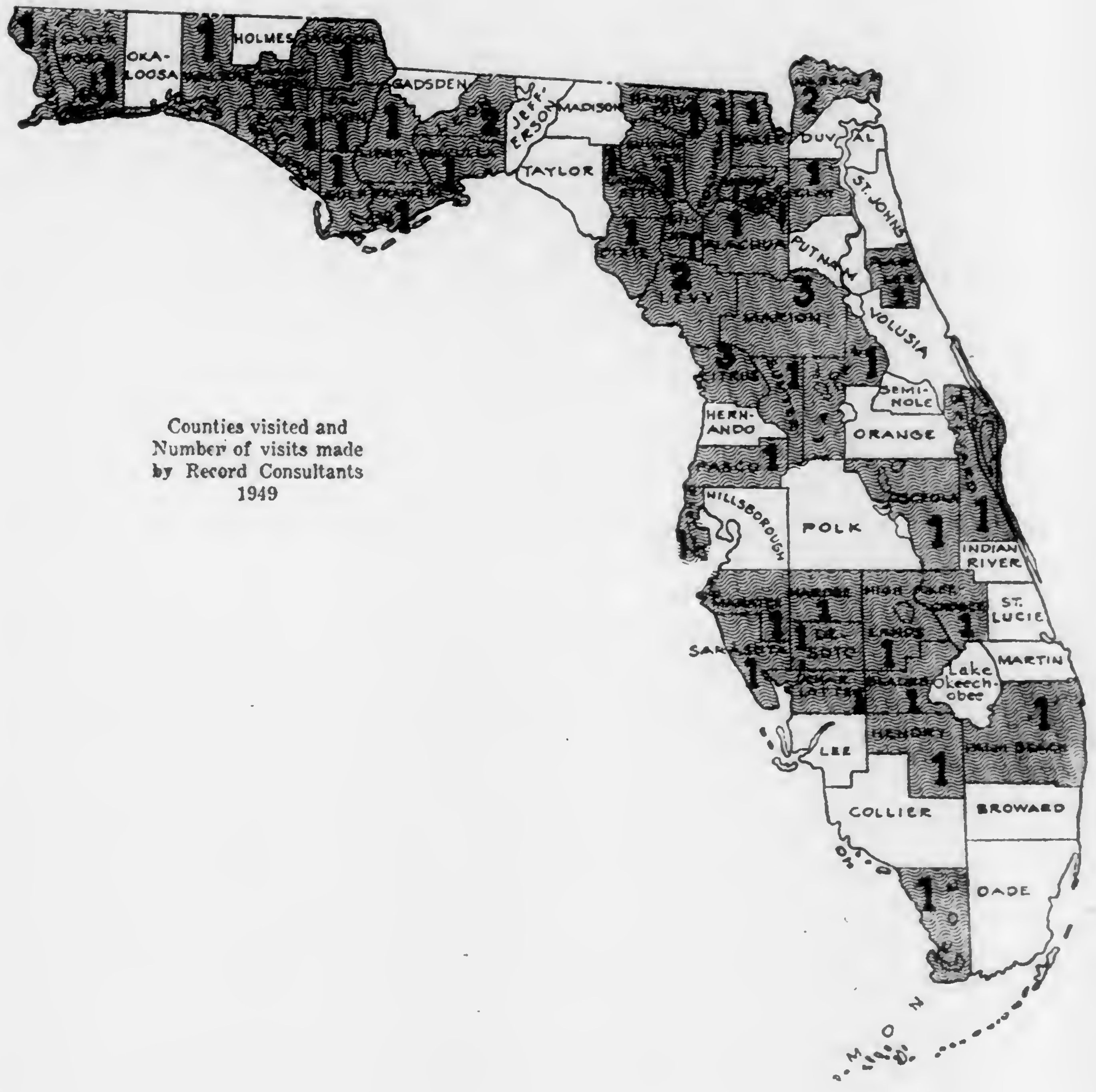
The attached maps show the counties visited and the number of visits made by members of the staff.



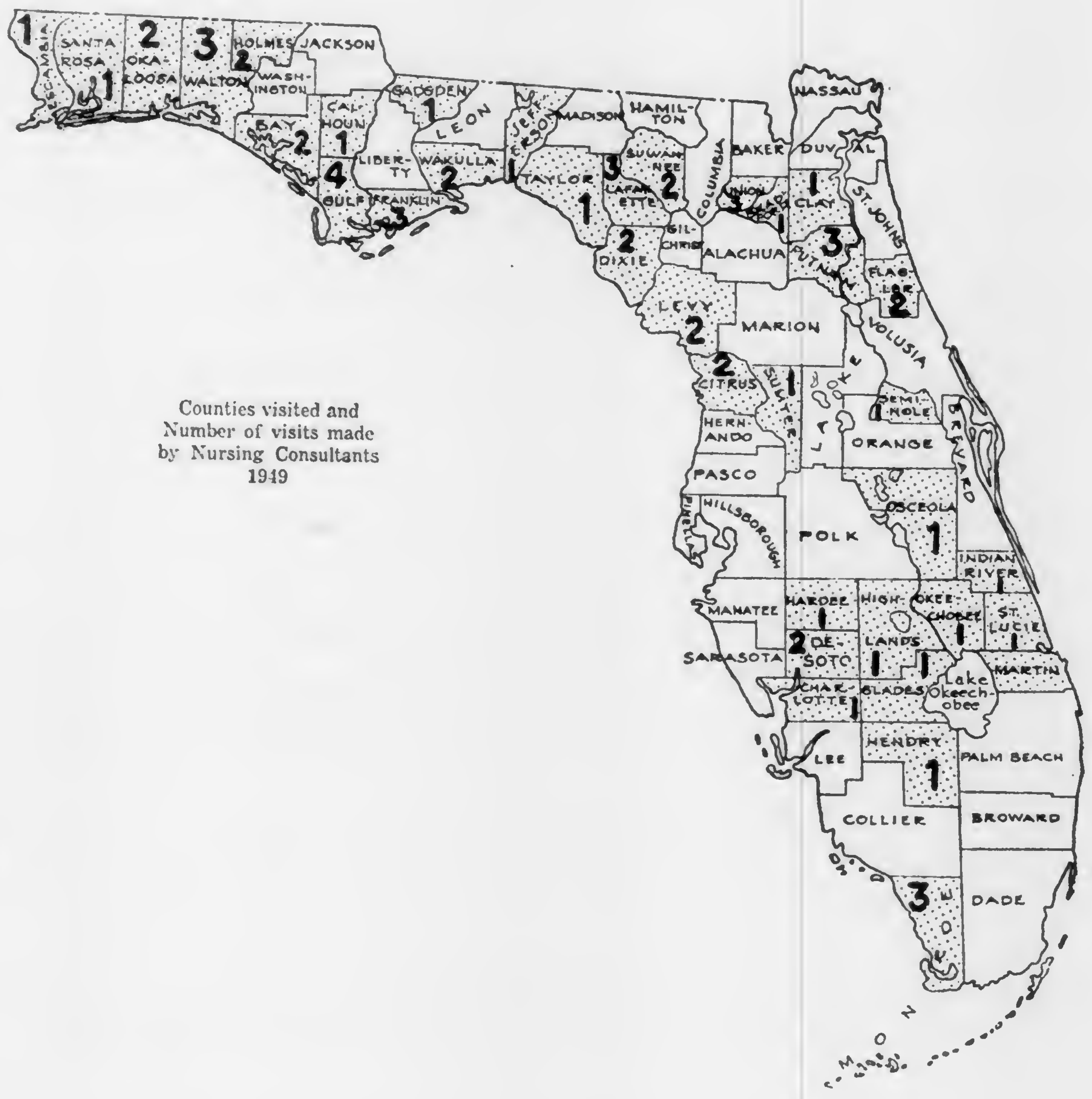
Counties visited and
Number of visits made
by Director
1949

FIELD TECHNICAL STAFF

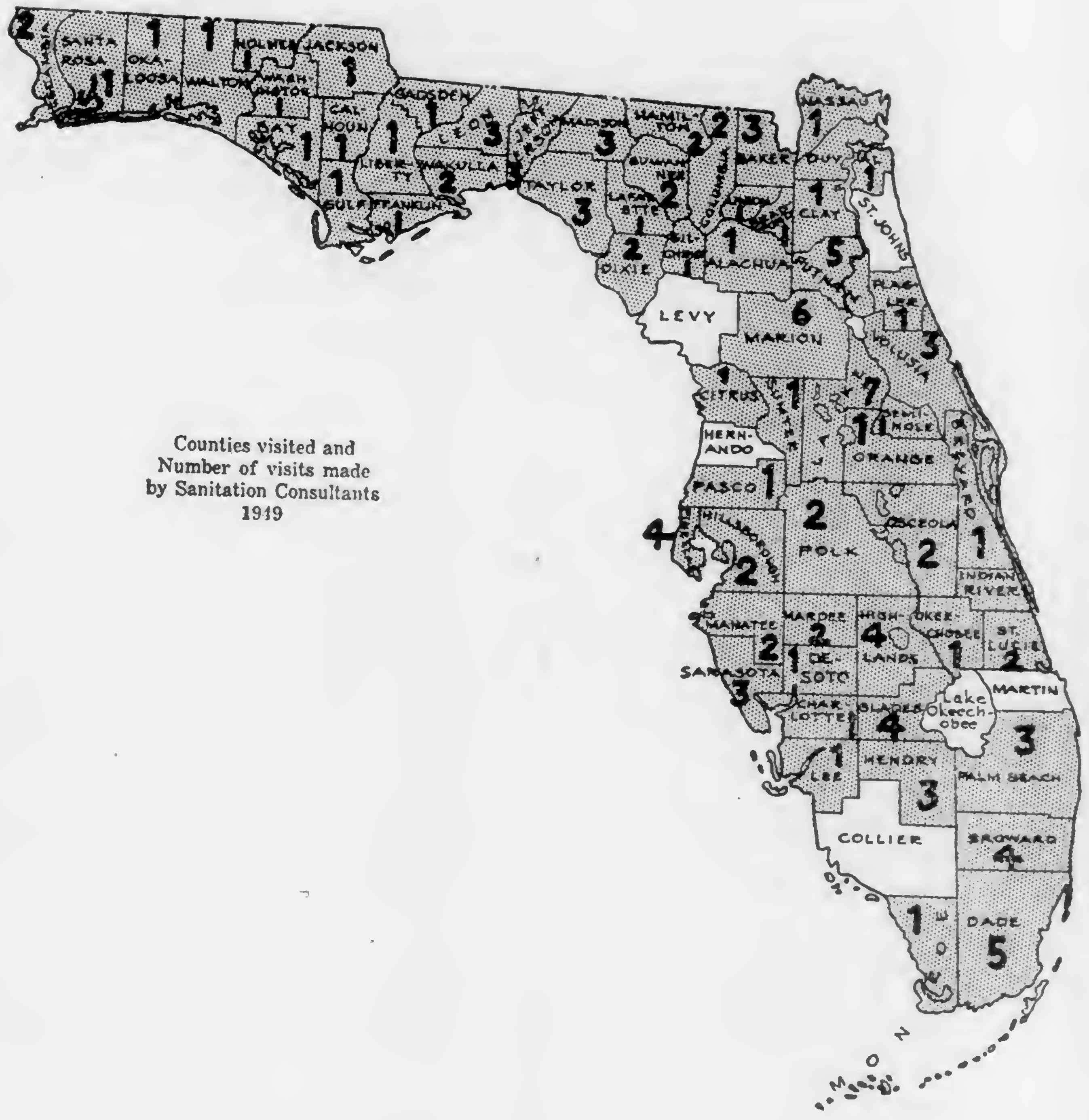




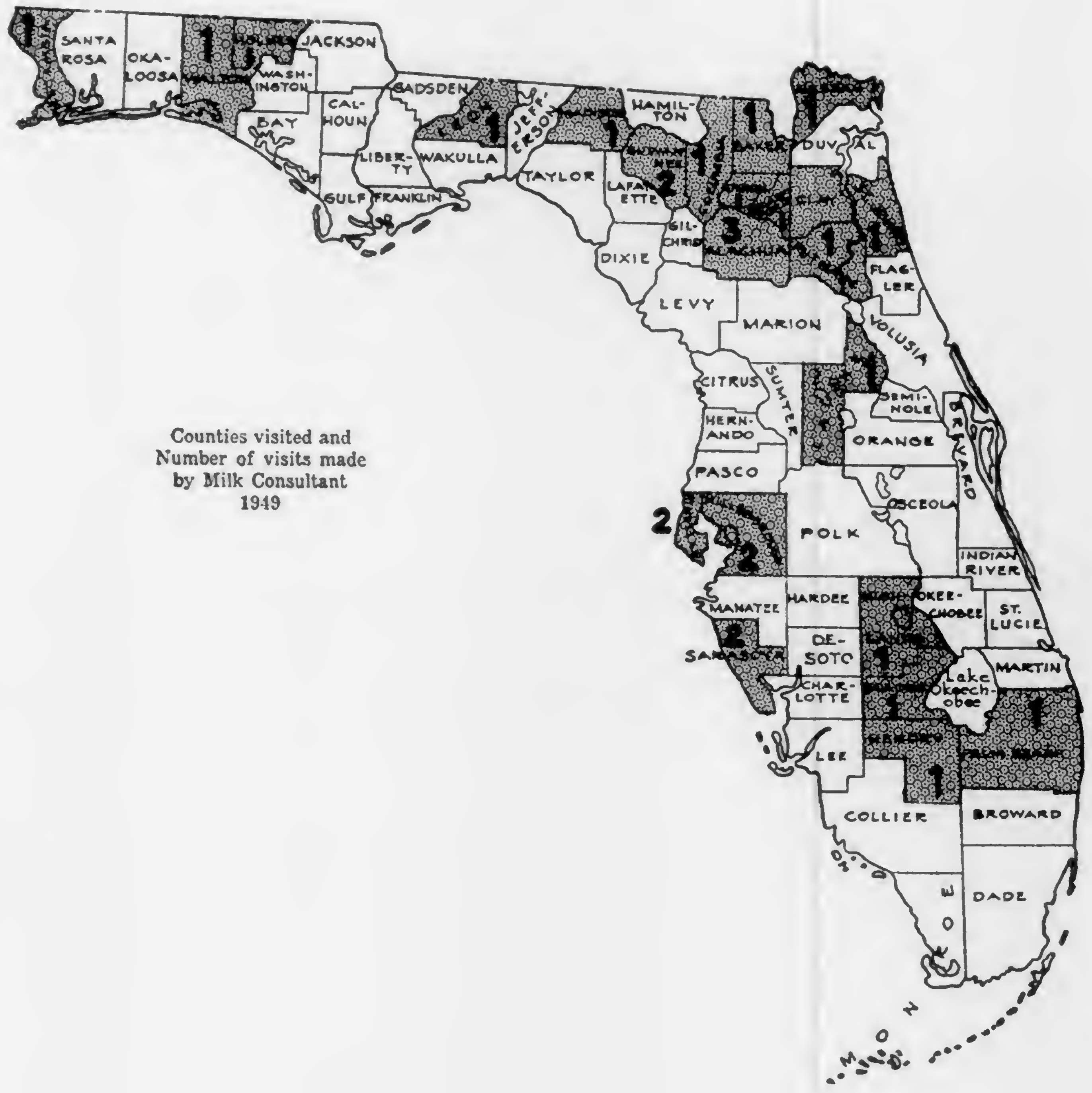
Counties visited and
Number of visits made
by Record Consultants
1949



Counties visited and
Number of visits made
by Nursing Consultants
1949



Counties visited and
Number of visits made
by Sanitation Consultants
1949



Counties visited and
Number of visits made
by Milk Consultant
1949

FIELD TRAINING CENTER

Florida State Board of Heath
Gainesville, Florida

Frank Hall, M.D., Director

During the current report year, there were seven physicians, eleven nurses, twenty-five sanitation assistants, and seven clerks through the training center, making a total of fifty persons in training. This represents about 3,375 trainee days provided by the training center for this period. The annual budgeted outlay for this operation was $37,700. This represents a costs of $11.17 per trainee day.

Table I is a trainee classification showing annual total number trained and number and percent resigned from January 1, 1946-December 31, 1949.

Table II shows the cost of field training by years from January 1, 1946-December 31, 1949.

Tabulation III shows the total amount of service rendered the State by physicians, nurses, sanitarians, and clerks who have been in training. It might be pointed out that there has been since the organization of the training center 117,450 days (114 years) of service rendered by these groups. The total cost of the training program through December 31, 1949 has been $150,013.00. This represents an average cost of $1.28 per day of service rendered. (See Appendix Map for Distribution.)

During this period a cooperative agreement between the Florida State University, at Tallahassee, was worked out wherein the students could be assigned to the training center for a three months period of instruction and internship in the field of General Environmental Sanitation. The University grants credit toward degrees for this work. This is a partial solution for the recruitment of personnel.

The general acceptance by county health officers and their staffs of personnel that has been through the training center is one proof of the value of the training center. Also the fact that the program has been accepted by State agencies such as Florida State University and County Commission legislative bodies is just another indication that the training center is rendering a worthwhile service to the State.

TABLE I

SUMMARY BY TRAINEE CLASSIFICATION SHOWING ANNUAL TOTAL NUMBER TRAINED AND NUMBER AND PER CENT RESIGNED

STATE BOARD OF HEALTH TRAINING CENTER GAINESVILLE, FLORIDA

JANUARY 1, 1946 - DECEMBER 31, 1949

	1946	1947	1948	1949	Total
Physicians					
Total	3	5	9	7	24
Resigned	3	1	5	3	12
Special		1	2		3
Per Cent Resigned	100	25	71.4	42.8	57.1
Nurses					
Total	17	18	9	11	55
Resigned	7	8	4	3	22
Special	6	4			10
Per Cent Resigned	63.6	57.1	44.4	27.2	48.8
Sanitation Assistants					
Total	40	33	28	25	126
Resigned	17	7	5	3	32
Special	1	1			2
Per Cent Resigned	43.6	21.9	17.9	12.0	22.5
Clerks					
Total	4	9	11	7	31
Resigned	2	2	3	0	7
Special					
Per Cent Resigned	50	22.2	27.2		22.6

TABLE II

COST OF FIELD TRAINING STATION OPERATIONS

STATE BOARD OF HEALTH TRAINING CENTER GAINESVILLE, FLORIDA

JANUARY 1, 1946 - DECEMBER 31, 1949
By
TRAINEE CLASSIFICATION, PER TRAINEE DAY

Fiscal Year	Trainee Classification Days of Training			Clerks	Total Days of Training	Annual Budgeted Operations Cost	Individual Per Trainee Cost Per Trainee Day
	Physicians	Nurses	Sanitation Assistants				
1946	40	960	3,600	60	4,660	$ 36,170.00	$ 7.76
1947	165	840	2,970	270	4,245	37,200.00	8.76
1948	200	780	2,520	300	3,800	38,943.00	10.25
1949	195	660	2,250	270	3,375	37,700.00	11.17
Totals	600	3,240	11,340	900	16,080	150,013.00	9.33

TABLE III

FIELD TRAINING CENTER

FLORIDA STATE BOARD OF HEALTH GAINESVILLE, FLORIDA

January 1, 1946 - December 31, 1949

Aspects of Training

Days of Service

Physicians	Nurses	Sanitarians	Clerks
8,310	21,030	72,840	15,270

Total Service Days: 117,450 (411 years).
Total Training Cost: $150,013.00.
Average Cost of Training Per Day of Service Rendered: $1.28.

BUREAU OF MATERNAL AND CHILD HEALTH

Frances E. M. Read, M.D., Director

The director of this bureau has continued to place special emphasis on the establishment of a program for the care of the premature infant. During 1949, MCH (Maternal and Child Health) funds were available for hospital and public health services to both the mothers and children in the area to be served by the Western Palm Beach County Hospital, known as the Belle Glade Hospital. During this year 587 maternity cases and 200 pediatric cases received care in this hospital. These services were discontinued on April 15, 1949.

The director worked in close cooperation with the MCH Director in Dade County in developing a proposed plan for a demonstration premature infant care project in Jackson Memorial Hospital. The present plans call for the expansion of their facilities from a service that now takes care of 14 prematures to a service that would enable them to take care of 30 prematures. It was felt that in addition to providing direct service to the premature, this would serve as a training unit for personnel from other parts of the State. This program was presented to the pediatricians and the health officers in the State and received their wholehearted support. The need for this program is shown by the fact that Florida ranks 43rd from the lowest in the Nation with respect to the premature infant mortality rate.

Thirty-two specially constructed Pragel Carriers were purchased for distribution throughout the local county health departments. Twelve additional incubators were purchased for loan to the health departments. Three public health nurses received special training in the care of the premature. A survey was made of the institutions in order to determine the number which would be willing to cooperate in a plan for training of the institutional nurses in this special care. It is planned to send 8 institutional nurses for special training during 1950. It is felt that only by increased emphasis on the training of the institutional nurses in this special care will it be possible to make any impressions on the present high premature infant mortality rate in this State.

The director has worked closely with the president of the Florida State Pediatric Association and a state committee on the Foetus and Newborn has been appointed. Chairmen of 13 local committees have been named. In several areas throughout the State, these chairmen have appointed their individual committees who are active in adapting the recommendations of the American Academy of Pediatrics to the local hospitals in their area. Copies of the recommendations of the American Academy of Pediatrics have been provided for each of the hospitals with nursery services and additional copies have been supplied to the pediatricians and obstetricians in the State. A very important function of the committee of the Foetus and Newborn will be the analysis of the premature infant deaths. In certain areas the forms for these analyses have been adopted and have been made a part of the permanent hospital record.

During 1948 there was one maternal mortality survey committee in operation in the State. During the April 1949 meeting of the Florida Medical Association, the state committee on Maternal Mortality was reactivated. During 1949 three additional maternal mortality survey committees have been appointed. In the formation of these committees, the chairman of the Maternal Welfare Committee of the Florida Medical Association and the president of the Florida Obstetrical and Gynecological Society cooperated with this Bureau. These committees have been very active and have shown by their analysis that a high percentage of the maternal deaths are preventable. It is hoped that it will be possible to form 8 or 9 additional committees in the State during the coming year.

Scholarships to attend the postgraduate obstetric seminar in Augusta, Georgia, were provided for 10 health officers and clinicians who work in the local health departments.

The problem of the midwives in Florida was presented by Dr. J. T. Smedley, MCH Director, Dade County Health Department, at the meeting in Augusta, where a panel discussion of the problem in Florida, Georgia and South Carolina was given.

In view of the study made concerning the ages of licensed practicing midwives in Florida, it was found possible to retire 72 of the total of 472. However, it has been necessary to license 35 new ones. The State Midwife Teacher has assisted and helped plan in the training of young midwives to replace the older ones. An additional Nurse Midwife Consultant has been obtained for one of the county health departments. In that area it has been possible for her to give direct supervision to the practicing midwives. Additional midwife teachers will be employed during the ensuing year in order to retire the old midwives and replace them with younger trained workers.

In addition to the audiometers that had already been distributed through this bureau to the various county health departments, six group audiometers were purchased. In certain of the larger counties these examinations are made by trained technicians, and in these counties there is a well developed generalized hearing program with arrangements through the local nose and throat specialists contributing their services in the correction of any defects. Local organizations, for example the Pilot Clubs, have purchased radon and hearing aid apparatus.

A Fellowship in Audiology and Speech has been awarded to a Florida woman by the Johns Hopkins School of Public Health. She will receive the degree of Doctor of Science in Audiology and Speech and will return to this bureau as a consultant in these fields.

Lecturers were provided by this bureau for the Postgraduate Medical Assembly, a short course which is held annually in Jacksonville by the Florida Medical Association.

The director worked closely with the Florida Children's Commission as pediatric consultant to the planning committee. She presented the health problems of Florida children at the Nemours Foundation Conference in Jacksonville. She has continued to work actively on their advisory committee concerning the follow-up on the suggestions made at the time of the meeting here. It was felt that the needs as outlined by the Commission were very great and that many gaps existed.

The director worked with the consultant on education of exceptional children on the standards for the exceptional child. The pediatric standards for this monograph have placed stress on the argument against the compartmentalization of remedial work. Under the existing facilities, if ten exceptional children are available in one locality, a special class may be established in that school by the State Department of Education. However, it has been possible to label many more exceptional children than

there is space in these schools in which to allot them. This is due to the fact that the number of teachers with this special training is somewhat limited.

The director worked with the Florida Crippled Children's Commission, the Cerebral Palsy Association, the Florida State Conference of Social Work, the Florida State Welfare Board and the Florida Council for the Blind.

MENTAL HEALTH PROGRAM

Frances E. M. Reed, M.D., Director

The Mental Health Program, supported by grant-in-aid funds for this specific purpose from the United States Public Health Service has been able to maintain six clinics in the State of Florida during 1949. It has not been possible to obtain the services of a full-time psychiatrist as director of this program. During 1949 in addition to the six mental health clinics, one study program has been maintained in Volusia County. This study has continued to represent an almost complete county-wide survey in addition to supplying services in the field of school psychology and has been expanded with the assistance of several of the nurses who have been working in very close contact with both the school and health department.

Pinellas County: During 1949 the full awareness of the challenge and responsibility inherent in the Child Guidance Clinics of Pinellas County was reaffirmed in its two-fold program, consisting of the following:

1. A program to help prevent the development of emotional maladjustments through community education which will acquaint parents, teachers, and personnel of social agencies with:
   a. The personality development of human beings,
   b. The fundamental needs of children which must be met to insure good emotional health,
   c. The importance of human relationships in social living,
   d. The community resources available to help children grow into healthy happy members of society.

2. A program of study and treatment:
   a. To determine the capabilities of children with special physical, mental and emotional handicaps,
   b. To evaluate the intellectual and the personality developments of children under care of other community agencies,
   c. To enable children and parents to identify and correct beginning signs of maladjustment,
   d. To help those already maladjusted to become emotionally healthier children and adults.

The sources of financial support for this clinic have been the Juvenile Welfare Board of Pinellas County, St. Petersburg Community Chest, Central Pinellas Contributions, School Board, and the National Mental Health Funds.

The staff of this clinic has been organized in such a way that a complete team consisting of Dr. Bailey, as psychiatrist, a full-time psychologist-psychotherapist, one psychiatric social worker, a psychometrician, and one medical social worker are available. The director of this clinic, Dr. Paul W. Penningroth, was selected by the Postgraduate Center of Psychotherapy of New York City to partcipate in a special nine months project of research and treatment.

During the year 1949 there have been 265 new cases seen in this clinic. However, during this year an approximate total of 838 persons were seen in the clinic. The number of visits per person ranged from 1 to over 50. Since the case is always in the child's name regardless of how many adults are seen or helped in connection with the particular child there were 335 cases corresponding with the number of children involved. These 335 cases paid a total of 1,887 visits to the clinic in this one year. Of these cases 70 had been carried over from the year 1948 and 265 were new. During 1949, 270 of the cases have been closed whereas 65 of them must be carried into 1950. Of the 65 to be carried over from the end of 1949, 46 of them are in the St. Petersburg office and 19 are seen in Clearwater. In considering the 335 cases worked within 1949, it was found that 58% were boys and 42% were girls. Their intelligence levels ranged from so low and disturbed as to be untestable to as high as very superior, and their ages ranged from two years to over 21. This clinic limits its services

to the age range of 6-21 years as set forth in the clinic constitution. The ages of the children were as follows:

5 years and under	7%
6, 7 and 8 years	24%
9-12 years	27%
13-15 years	24%
16-21 years	14%
Over 21 years	4%

It is interesting to note that whereas the average age of clients in 1948 was about ten years, plus, it moved up in 1949 to 11 years six months.

The children were referred by a wide variety of individuals and agencies. The largest single number of referrals came on the initiative of the parents themselves. Again there is indication here that both the clinic educational program in its preventive aspects and the clinic services as rendered were helping to focus attention in Pinellas County on the mental hygiene needs of children and families. They came because in some area of their living they had demonstrated through symptomatic behavior their potential or present inability to cope with the environment in which they were living.

The sources of referral were as follows:

Parents	30%
Schools	27%
Juvenile Court	15%
County Health Dept.	12%
Other agencies	9%
Other sources	7%

In breaking down the problems into the variety of reasons for referral, we may summarize them as follows:

1. Behavior disorders of children	49.4%
2. Mental deficiency	13 %
3. Psychoneuroses	16 %
4. Psychoses	4.9%
5. Character disorders	.3%
6. Disturbances associated with organic and infectious diseases	3.3%
7. Intelligence testing of handicapped children	11.3%
8. Requests for vocational and educational guidance, and adoption studies	1.8%

This clinic has reported an ever increasing interest in mental health on the part of parents and social agencies. There has been an increased emphasis on the social casework in their Juvenile Court and in the other child welfare agencies. During 1949 the clinic has enlarged its range of techniques used in the referrals of children with special handicaps and with anti-social court records. These children are given a broad diagnostic study and the interpretation of the results is given to the parent, the school and the child, where indicated.

Pinellas County plans a new demonstration clinic to be centered in four schools during the next three years.

Dade County: This clinic has shown considerable expansion in its services during 1949. Dr. T. E. Cato, director of the Dade County Health Department, has been active in integrating the services of this clinic with those provided by the school department and he has succeeded in expanding the services to include the Juvenile Court. The school commissioners of Dade County supplied the funds to pay the social worker and provided space for the unit. This clinic is staffed by three psychiatrists, a psychologist supplied by the University of Miami, and a full-time social worker. The clinic manager acts as secretary and playroom worker.

The sources of funds were the Dade County Board of Public Instruction, the Dade County Health Department and the State Board of Health, using grant-in-aid funds for Mental Health from the United States Public Health Service.

In 1949, 231 patients were seen in this clinic which limits its service to children. The sources of referral were:

Dade County Board of Public Instruction	74%
Dade County Health Department	6%
Social Agencies and Private Physicians	20%

The types of problems presented were:

1. Behavior disorders of children	51%
2. Mental deficiency	19%
3. Psychoneuroses	5%
4. Psychoses	2%
5. Character Disorders	15%
6. Disturbances associated with organic and infectious diseases	8%

Dr. Fishbein, Dr. Kells and Dr. LeDrew each devoted one session per week to this clinic. During 1950 this clinic will have the services of a full-time clinical psychologist and an additional psychiatric social worker. In that way the clinic will continue to expand to the extent that we will be able to service all patients referred to it from the Juvenile Court.

Leon County: The Human Relations Institute is under the auspices of Dr. Joseph M. Bistowish, Director of the Leon County Health Department, and the Florida State University. The clinic had the services of a psychiatrist, Dr. Herman Selinsky of Miami, who found it necessary to terminate his services with the clinic in July 1949. The clinical psychologist and the social worker are on the staff of Florida State University but they devoted considerable time to the clinic. Funds for this clinic were received from Florida State University and the mental health fund of the State Board of Health.

Three students from Florida State University who were seniors in either the Department of Clinical Psychology or the Department of Social Work were utilized to do a limited amount of psychometrics or social case histories and field work under the direction of the clinical psychologist Dr. Sweetland, and Mr. Hicks the social worker.

A total of 600 cases were seen which represented 150 children and 450 adults. The sources of referral were:

Self	30%
County Health Departments	27%
Florida Industrial School	15%
Public Schools	8%
Veterans Administration	5%
County Probation Officer	4%
University Physician (FSU)	2%
Other	9%

The types of problems presented were:

1. Serious adult maladjustment	20%
2. Behavior problem, home or school	18%
3. Juvenile Delinquency	17%
4. Mental health check-up	11%
5. Possible psychosis	7%
6. Mental retardation	5%

7. Consultation	5%
8. Marital maladjustment	5%
9. Speech	4%
10. Organic neurological disorder	3%
11. Vocational advisement	2%
12. Other	3%

The fact that this clinic has rendered services to the adjoining counties deserves special emphasis. The following counties received psychological and social work conferences:

Leon	54%
Bay*	23%
Jackson**	15%
Gadsden	4%
Alachua	2%
Wakulla	1%
Franklin	1%
Calhoun	1%

*Panama City
**Florida Industrial School

Through this clinic it has been the policy to place considerable stress on the problems of mental health in the community and to provide training for the students in clinical psychology and social work in order that they might be used in expanding the mental health program throughout the State. The psychologist has been very active on the mental hygiene committee of the Florida State Conference of Social Workers.

Orange County: This clinic is under the auspices of Dr. Leland H. Dame, health officer of Orange County. Dr. Lowell S. Selling, psychiatrist, has devoted considerable time and services to this clinic. The clinic was moved from the Juvenile Court offices to the Health Department annex in July 1949. This move has enabled the clinic to undergo considerable expansion. Arrangements have continued for Dr. James H. Russell, professor of Psychology at Rollins College to serve part-time as clinical psychologist for this clinic. The Orange County School Board obtained the full-time services of a psychiatric social worker who remained with the clinic up until July 1949. Since that time they have had the part-time services of two social workers.

The sources of funds were the Orange County School Board, the Orange County Health Department and Mental Health funds from the State Board of Health.

During 1949, 212 cases were seen in this clinic. Of that

number 174 were children and 38 were adults. The sources of referral were:

Schools	38 %
Juvenile Court	33 %
Welfare Agencies	16 %
Health Department	3 %
Physicians	2.5%
Individuals	2.5%
Florida Parole Commission	2.6%
Vocational Rehabilitation	1.4%
Red Cross	1 %

The types of problems presented were:

1. Behavior disorders of children	49 %
2. Mental deficiency	21 %
3. Psychoneuroses	4.4%
4. Psychoses	8 %
5. Character disorders	8.2%
6. Disturbances associated with organic and infectious diseases	9.4%

Polk County: During October, 1948 the Polk County Guidance Center was established, and it has been maintained during 1949 uder the direction of Dr. Albert Ryan, acting health officer of Polk County. The Polk County Guidance Center had been organized through the initiative of Judge G. Bowdon Hunt of the Polk County Juvenile Court and occupied space in the Juvenile Court offices. The staff of the center included Dr. Lowell S. Selling, psychiatrist, a clinical psychologist, and a psychiatric social worker. This clinic has received its financial support through local funds, the Board of Public Instruction, and the mental health funds from the State Board of Health.

During 1949 239 patients were seen in this clinic. Of that number 198 were children and 41 were adults. The source of referrals was as follows:

School	37%
School Nurse	10%
Parents	11%
Physicians	5%
Welfare Dept.	7%
Health Dept.	13%
Juvenile Court	12%
Others	5%

The types of problems presented were:

1. Behavior disorders of children	21%
2. Mental deficiency	25%
3. Psychoneuroses	13%
4. Psychoses	4%
5. Character disorders	24%
6. Disturbances associated with organic and infectious diseases	13%

This clinic renders a unique service by offering an examination to all children admitted to the spastic school. All children assigned to special classes go to the clinic before being enrolled in the special class in order that their aptitudes may be determined. The children who present speech problems are seen in the clinic before being turned over to the speech therapist.

Hillsborough County: The additional funds received from the Mental Health Act have made it possible for Hillsborough County Child Guidance Clinic to complete a full-time staff. This clinic has developed from a modest beginning on a one day a week basis to the present organization with the minimum team staff of Dr. Bailey, psychiatrist, a full-time clinical psychologist, and a social worker.

The financial support for this clinic has been obtained from several local organizations especially the Junior League of Tampa which made available funds for the salary of a psychiatric social worker for a period of three years. These funds have enabled a greater expansion in the facilities originally available through funds from the Mental Health Act.

During 1949, 224 patients were seen in this clinic. Of these 224 cases, 60 or 27% of the total were adult persons. The remaining 163 cases were children. The sources of referral were:

School Principals and Teachers	25%
Social Agencies	22%
Community	18%
Friends	9%
Courts	8%
Physicians	7%
Others	11%

The types of problems presented were:

1. Behavior disorders of children	39%
2. Mental deficiency	16%
3. Psychoneuroses	25%
4. Psychoses	5%
5. Disturbances associated with organic and infectious diseases	8%
6. Diagnosis not complete	2%

The clinic's purposes and functions were presented before 44 different groups, including civic and women's organizations, P.-T.A., church, public health, school faculties, University and hospital classes.

Volusia County: The county wide study undertaken during 1948 was expanded during 1949. The exceptional child program during 1949 consisted of a project to screen the school population of the county for behavior and adjustment problems. This screening was carried out by a school psychologist who had been trained by Dr. Shaeffer of Columbia University. Problems which were amenable to management in the schools were identified and recommendations were made to principals, teachers, and parents. This program was geared to the school adjustment level and can be looked upon as a demonstration of the mental health aspects of a school health program. Because of lack of clinic facilities the relatively few children with severe emotional problems not amenable to environmental change were handled by psychiatric consultation or passed by as above the capacity of the present staff. The majority of the problems uncovered involved mental deficiency, reading difficulty, writing difficulty, speech difficulty, curricular maladjustments, or problems of poor social adjustment.

Dr. R. D. Higgins, the County Health officer, hopes that this program will eventually sensitize the school system to accept this responsibility along these lines just as other school health functions have sensitized schools to the responsibility in school health areas.

Duval County: During 1949 an Institute on Growth and Development was conducted in Jacksonville. The psychiatrist who made his services available for this Institute was Dr. Leo Kanner, professor of Child Psychiatry at the Johns Hopkins Medical School, who addressed several of the civic groups in the city. The Children's Committee had as its project of the year Mental Health in Jacksonville. The regional consultant of the U. S. Public Health Service in the field of psychiatry met with the group to discuss the possibility of establishing a clinic in this area. Several meetings were held with the Jewish Welfare Society to discuss the possibility of utilizing mental health funds in addition to those from the Levy Foundation in order to establish a child guidance clinic but these plans failed to materialize.

MENTAL HEALTH INSTITUTES

During April 1949, nine students from Florida attended an institute on Mental Health in Mississippi. This institute was under the auspices of the Mississippi State Board of Health and the Commonwealth Fund. The nine students from Florida were county health officers and two bureau directors from the State Board of Health. They had come together because the logic of circumstances seemed to point toward setting up mental hygiene programs in more of the local health departments. There was excellent teaching but this could not be called a course in mental health. It was a study in interpersonal relationships; a forum at which free discussions between two groups of people accustomed to work with human beings in different ways, led to a community of feeling.

During May 1949 a one-week institute was conducted in Jacksonville in order to stress mental growth for the benefit of the institutional nurses, public health nurses, and local health officers. There were 14 health officers, 25 public health nurses, 21 institutional nurses and 9 others who attended this meeting. The institute was conducted by Dr. Leo Kanner, professor of Child Psychiatry at the Johns Hopkins Medical School in Baltimore and Miss Isabelle M. Jordan, Specialist in the Nursing Care of Children from the U. S. Children's Bureau in Washington. There have been numerous requests from the individual county health departments for further follow-up on the instruction they received during this period.

The entire staff from each of the six existing mental health clinics in the State were afforded the opportunity to participate in a one-day discussion period with Dr. Kanner. The six clinical psychologists from the clinics attended a Mental Hospital Institute in Philadelphia during April. One clinical psychologist attended a Seminar in Projective Techniques held at Carmel, New York, for the month of June. One social worker attended the summer session at the Tulane University School of Social Work, New Orleans. The director of the Mental Health Program attended the meeting of the American Psychiatric Association in Montreal, Canada. One health officer from one of the largest rural counties in the State was afforded the opportunity to attend the School of Public Health, Johns Hopkins University, in order that he might receive the degree of Master of Public Health with special emphasis on the courses in mental hygiene.

In view of the fact that the mental health program in this State has just recently developed it has been found that the need for equipment was very great. For that reason, a considerable sum of money was expended for testing supplies, pamphlets, and library supplies for many of the clinics.

In the development of the mental health program in the State, a great need has been felt for stressing the importance of the management of convulsive disorders. During 1949 mental health funds were expended to purchase an electroencephalograph, and during the same year a private psychiatric clinic in Tampa has also purchased an 8-channel machine. It has been proposed to the Duval Medical Center that an electroencephalograph be purchased for the Jacksonville area.

GENERAL COMMENT

It is not possible or practical with the limited resouces in personnel and money to set up mental health facilities in every county or even in every district health unit in the State. It is, however, the ambition and duty of the State Board of Health to extend the mental health services to the greatest possible number of persons in Florida. It is hoped that more clinics may be developed but whether or not this can be done, the services of the present clinics should be made available to neighboring counties. Thus the existing clinics should be looked upon as regional facilities rather than being restricted to the use of the city and county in which each clinic is located. To this end the neighboring counties should share in the expense of maintaining the clinic to which they look for service. This should preferably be in the form of a flat rate contribution to the mental hygiene budget. Another alternative would be an agreed upon fee for visits from patients referred from the adjoining counties.

HEART DISEASE CONTROL PROGRAM

Frances E. M. Reed, M.D., Director

The program for control of heart disease (cardiovascular disease) was initiated in 1949, by virtue of a special allotment of funds for this purpose by the U. S. Public Health Service. Being a new project, its first objective has been education for both the medical profession and the lay public as to ways and means of attacking the greatest killer of all.

In view of the fact that it is important for the public to learn the true nature of adult heart disease, a considerable amount of these funds have been expended on suitable pamphlets for distribution generally. Films have been obtained and have been shown before large numbers of the lay population. Plans were perfected for professional training in the recognition of heart disease and its various manifestations to be stressed in an institute devoted to cardiovascular disease. Extensive preparations have been made to conduct this institute under the auspices of the Miami Heart Association, the Florida Heart Association, the Florida Medical Association, and the State Board of Health. For this purpose it has been possible to obtain the services of nine of the leading cardiologists with not only national but also international recognition.

In addition to the foregoing a special study project has been arranged for in Escambia County. This survey was a joint undertaking between the U. S. School of Aviation Medicine and Research on the one hand and the Florida State Board of Health on the other. The general purpose of this study was two-fold: 1st, to determine the incidence of various types of heart disease and disorders in a representative group of Florida school children; 2nd, to establish normal values for electrocardiograms in healthy subjects ranging in age from 10 to 19 years inclusive.

This survey will cover all of the children in one elementary school, one Junior High School, and the Pensacola High School. The study is under the direction of Captain Ashton Graybiel, M.C. U.S.N. The Navy has provided the part-time services of Lieutenant John Packard. Heart disease control funds administered through the State Board of Health, provided two competent technicians whose main duties consisted of taking electrocardiograms. The study has been conducted at the Pensacola High School and will continue there until all of the pupils have been examined. Each child is examined by Lieutenant Packard and in the case of doubtful or positive findings of disease or disorder the examination is checked by Captain Graybiel. In addition to the history and physical examination, each child is fluoroscoped and an electrocardiogram is obtained. The examinations are conducted at the school. The cooperation of the school authorities and the parents of the children has been excellent. This study has received the wholehearted approval of the Escambia County Medical Society. The material obtained from this study will provide: 1st, a report on the clinic findings in a representative population of school children; 2nd, a detailed report on the electrocardiographic findings in normal subjects.

Nutrition Services—The importance of nutrition in the management of the cardiac patient is now well established. The Community Cardiac Services program of the Miami Heart Association has worked in close cooperation with the Bureau of Nutrition Investigation and Services of the State Board of Health and with this bureau in working out special low sodium and rice diets. It is felt that one of the functions of this bureau is to provide advice and assistance to physicians regarding the dietary management of their patients. In certain localized areas in the State the dietitians have been active in their participation in this program. The nutritionists from the State Board of Health plan to submit additional diets at frequent intervals.

BUREAU OF DENTAL HEALTH

Floyd H. DeCamp, D.D.S., Director

For the first six months of 1949, George A. Dame, M.D., Director of the Bureau of Local Health Service, served as acting director of this department. Because of inability of the Board of Health to secure the services of a qualified dental director, there was planned at that time no expansion nor variation of the program from that of the previous year.

A dentist trained and experienced in public health dentistry, was appointed Director of the Bureau of Dental Health in July, 1949, and has continued in that capacity directing efforts toward the strengthening and expansion of the present program.

In order to improve the dental service and place dental health on an equal basis with other preventive public health activities in the State the Florida State Board of Health, meeting in executive session, in July, 1949, abolished the Division of Dental Health and created a Bureau of Dental Health.

CLINICAL SERVICES

One field dentist operating a mobile dental unit conducted educational and remedial clinics in several counties for elementary school children. This service was interrupted in July because of the illness of the dentist and, to date, has not been resumed as there is a shortage of dentists holding licensure to practice dentistry in the State, who are available for field service. Eleven counties were visited by the field dentist who treated a total of 1,869 new patients and 568 repeat patients, performing 6,026 dental corrections.

Six county health departments operated dental corrective clinics throughout the entire year as a part of their general health programs. Of these, three counties employed a full-time dentist, two counties expanded their dental programs to employ both a full-time and a part-time dentist, and one county maintained a dentist on half-time basis. One of these six counties in addition to one full-time and one part-time dentist, also used the services of a full-time dental hygienist. Together these counties made 37,492 (special school inspections included) dental inspections, treated 6,110 new patients and 6,975 repeat patients, and made a total of 23,488 dental corrections. The clinic dentists presented a number of talks and dental health films to both school and civic groups and also prepared dental educational radio programs.

The Bureau of Dental Health acts in an advisory capacity, when requested by the director of a county health department, in either the indirect supervision of an established dental program or the initiation of a new one.

A number of counties utilized Maternal and Child Health funds provided for dental corrections. This service was rendered by the private dentists in their own offices in the various communities.

DEMONSTRATION OF TOPICAL APPLICATION OF SODIUM FLUORIDE

Late in 1948, the U. S. Public Health Service at the request of the State Board of Health, assigned one of its dental demonstration units of Florida to conduct programs on the tropical application of sodium fluoride to the teeth of children as a dental caries preventive measure. Considerable time was spent in selecting centers and making the necessary detailed preliminary arrangements for the unit in each locality visited. During 1949, twenty-two schools in eight counties received the benefit of this health measure and a total of 5,263 elementary school schildren were given complete sodium fluoride treatments.

The response of civic groups to the Sodium Fluoride Demonstration program has resulted in an increased interest in these areas for the establishment of local preventive and remedial dental programs under the direction of county health departments with local dentists participating. Interested local groups (PTA's, etc.) in eight counties have requested assistance from the Bureau of Dental Health in initiating such projects and all have pledged very substantial financial support toward this goal. A few of these projects are now in operation.

FLUORIDATION OF WATER SUPPLIES

The Florida State Board of Health in executive session March, 1949, adopted a policy pertinent to application of sodium fluoride (or similar compounds) to public water supplies in the State, which enables the Bureau of Dental Health and the Bureau of Sanitary Engineering to follow a definite policy and a set procedure when cities or communities in the State desire to add sodium fluoride or similar chemicals to the community water supply.

Under these regulations the city of Gainesville, through the initial sponsorship of the local dentists approved a plan to add sodium fluoride to its public water supply. Operation of this program began November 1, 1949.

During this year, one commercial concern engaged in furnishing bottled water to citizens in the Miami area, complied with all Florida State Board of Health regulations for application of sodium fluoride to drinking water and was granted a permit to dispense and sell drinking water to which the recommended percentage of sodium fluoride has been added.

EDUCATIONAL PROGRAM

The demand for dental health educational films by school and community groups increased during the year. The Division of Health Information reported purchase of a number of new dental films for sound machines, which makes available a total of ten sound films on dental health subjects. Increased purchases of dental health informational booklets were made because of unprecedented demand from schools. The distribution was made through the Division of Health Information.

BUREAU OF TUBERCULOSIS CONTROL

C. M. Sharp, M. D., Director

The general activities of the Bureau of Tuberculosis Control have continued very much in line with those reported in the previous Annual Report of 1948. This report will analyze the activities of this Bureau similarly to previous Annual Reports so that comparison can be made as to progress of work which would not be possible under other circumstances.

An attempt is made to show the progress in case reporting, contact examinations, nursing follow-up, and X-ray clinic follow-up as well as activities in mass X-ray surveys. It should be pointed out that during the past three years, the Bureau of Tuberculosis Control has succeeded in examining approximately 40% of the adult population of the State of Florida. As a result of these examinations, with mass X-ray surveys, the extent of the tuberculosis problem in this State can be judged fairly accurately. An analysis of over 40% of the entire adult population examined warrants an estimate that there are approximately 13,008 cases of tuberculosis in this State, 25% of which are probably active and need hospitalization.

These figures have been greatly helpful to the State Tuberculosis Board, under the able direction of Mr. W. T. Edwards, Chairman, in their attempt to convince the State Legislature of the necessity of constructing adequate hospital facilities for the treatment of our tuberculosis patients. In this respect, the Tuberculosis Board was successful in obtaining funds to replace the barrack-type hospitals in Tampa as well as the hospital in Marianna which has been turned over to the State Tuberculosis Board by the War Assets Administration, free of charge. As soon as the current building program, for which appropriations are already available, has been completed, the State will have over 1700 beds for the treatment of tuberculous patients. Based upon the number of deaths occurring in the State of Florida during the year of 1949, there will be, for the treatment of pulmonary tuberculosis, approximately 2½ beds for each death from this disease. This is the recommended standard of the National Tuberculosis Association for a proper Tuberculosis Control Program.

INCREASED ACTIVITIES

Consultation Clinic Service: As a result of the extensive case finding program which is being conducted, there is now on hand a larger number of known cases of pulmonary tuberculosis than ever before. Many of these newly discovered cases have been proven to be active and infectious, and these have been hospitalized or otherwise brought under treatment. However, a great number must be diagnosed as being questionably active, and these require a type of clinical evaluation not readily available in most sections of the State. As a consequence, the status of a large number of these cases has remained undecided. It is not economically feasible to admit too many of these cases to hospitals for study unless they are known public health problems.

Therefore, a Consultations Clinic service has been set up which will provide the county health units with a physician trained in tuberculosis work. Clinical service has been integrated with existing services provided by the Tuberculosis Control Bureau, namely, X-ray interpretation service, diagnostic X-ray clinics and the central case register. The tuberculosis clinician will see patients, take a history, review the X-rays of each patient, explain the need for the follow-up and perform any laboratory tests or diagnostic procedures necessary to reach a final diagnosis.

It is the primary purpose of the Clinic to find the active cases and aid the local health officer in getting the patient to accept treatment. The Clinic may also serve to prevent the unnecessary hospitalization of patients and obtain additional proof of the activity of the disease process found in X-ray Clinics, which has not been the case in the past. Any individual suspected of having tuberculosis may now be carefully examined in order to determine whether tuberculosis is actually present or whether some other disease is present which requires attention by the patient's physician. County Health Officers have been urged to encourage private physicians to refer their patients having undiagnosed chest disease to the Clinic on the assumption that some of these might have pulmonary tuberculosis, and therefore, remain public health problems.

At the Clinic many persons are given the opportunity to see their X-ray films and to talk to the clinician about tuberculosis. To those having tuberculosis lesions, newly discovered or previously diagnosed, the advice of the clinician may serve to prevent a future break-down and remove many worries the patient may have. Regular X-ray and sputum examination is stressed, and the county health departments are urged to have current information corresponding with the register of the State Board of Health.

Ex-sanatorium patients can be examined and given the advice and encouragement that such patients need and which are not readily available in an average community. Cases for rehabilitation can be referred to the rehabilitation agent for assistance along these lines. The clinic also contributes to the overall tuberculosis control program in that it represents a form of in-service training for the public health nurses whose general schedule leaves little time for post-graduate study in every phase of their work. Its value in this respect has been proven in counties where clinics have been held.

The Consultation Clinic began only during the latter part of 1949 and clinics were held in Alachua, Bradford, Bay, Leon, Sarasota and Manatee counties. Experience gained shows that this service can be extended, and a more complete schedule has been prepared for operation in 1950. The following figures reflect a part of the activities of the consultation clinic service during the time it operated in 1949; that is from August 1, 1949, through December 31, 1949. Total attendance 135, white adults through December 31, 1949. Clinic services are analyzed in the following table:

Death Rates

CONSULTATION CLINIC SERVICES

TOTAL ATTENDANCE AT CLINICS		135
White adults	90	
White children	10	
Colored adults	30	
Colored children	5	
TYPES OF CASES EXAMINED		
Definite tuberculosis		97
Cases detected by mass X-ray	32	
Suspects		35
Contacts		5
Patients having once been hospitalized		33

DISPOSITION OF PATIENTS

Hospitalization	22
Routine follow-up	43
Division of Vocational Rehabilitation	6
Private physician (other pathology detected)	18
Closed out of files	8
Further study	47

As has been previously stated, no correct analysis of the tuberculosis situation in a community would be complete without studying the death rates. It is the opinion of most authorities in public health that the death rate gives the best index of the tuberculosis problem in a community.

During 1949, 659 persons died of tuberculosis, accounting for a death rate of 25.4 per 100,000 population as compared with 31.6 in 1947. The rate for 1949 is the lowest ever recorded in Florida and likewise is lower than that of any other state in the Southeast. Also the rate for 1949 is less than the national average which was 26.1 for the same period.

Comparing the 659 persons who died in 1949 from tuberculosis with the previous 720 persons dying in 1948, it can be seen that there has been an appreciable decrease in the number of lives lost which probably has been due in a large measure to ability to isolate properly the advanced tuberculosis patients and prevent the development of new cases. It should be noted also that the mortality rate for white persons in Florida has dropped to 15.3 deaths per 100,000 population which compares very favorably with the best states in the Nation. The Negro mortality rate still remains high although there has been a decrease from 66.9 per 100,000 population during 1948 to 63.4 during 1949. Table 1 shows the recorded deaths of tuberculosis per 100,000 population by race from the year 1917 through 1949. Figure 1 shows the mortality rate in graph form with the definite decrease as demonstrated in the Table.

Reported Cases

Next to report of deaths, the study of morbidity reporting in any infectious disease assumes the most important place. During 1949 the intensive study of the morbidity of tuberculosis in the State has been continued. The principal sources for morbidity reporting have been from X-ray clinics operated by the State Board of Health and the local health departments, State Laboratory, the Sanatoria, private physicians, Veterans Administration, etc.

Table 2 shows the reported tuberculosis cases by source of report in Florida in 1949 and Figure 2 shows a comparison of percentages in tuberculosis cases reported by source of report in 1949 and 1949. In addition, Table 3 shows a complete analysis by county of the tuberculosis cases reported by race, sex and stage of the disease for 1949. It should be noted that there has been a further decrease in the total number of cases reported in 1949 when compared to 1948. During 1948 there were 3,313 cases of tuberculosis reported in the State. However, during 1949 there were 3,198 cases reported which, in most all instances, were newly reported cases. An analysis of the source of reporting as shown in Figure 2 shows that there has been an increase in reporting of cases from county and city health departments. In 1948 there was a marked increase over 1947 in this same source of reporting. In a great majority of cases, the private physician reports to the county health department when he has a case of tuberculosis and refers the patient to the county health clinic for follow-up. The general hospitals still have not begun the intensive routine X-ray screening of admissions as had been hoped. It is one of the Bureau's projects in 1950 to attempt to obtain more screening of individuals admitted to general hospitals. It is felt that better morbidity reporting can come about in this way.

There has been a slight increase in the number of cases first reported by death certificate. Obviously, nothing can be done to aid cases which are not reported before death occurs. In 1948, 4.2% were reported by death certificate while in 1949, 4.8%, or 154 cases, were thus reported. This is still an alarming figure and one which should be corrected by all means.

It should also be noted that in previous years large numbers of cases have been reported by the State Tuberculosis Sanatoria which have been sources of our first reports. This figure has decreased from 7.5% in 1948 to 4.1% in 1949 which probably can be accounted for by better reporting from the local health departments before the patients were admitted to the Sanatoria.

A comparison of the number and percentage of reported cases by race and sex and the number of tuberculosis cases reported by age groups in Florida are shown in Tables 4 and 5.

Figure 4 indicates the same information in graphs. Figure 4 is an attempt to illustrate on a comparative basis the cases reported in 1948 and those reported in 1949. In analyzing these figures, it is still found that the white male occupies the position in which there is the highest incidence of tuberculosis reported. Of all cases reported, 45.9% were white male which is practically the same as in previous years; 27.9% were white female which is slightly lower than in the previous year; 15.3% were colored male which is higher than in 1948; and 9.7% were colored female which is also higher than in 1948. The fact that the mortality rate from tuberculosis occurs among the Negro population in a ratio of about four to one when compared with the white population, would naturally lead to the assumption that the morbidity among the Negroes should be higher, but it is not borne out in this table. It is estimated that this State has a Negro population of 25% of the total population whereas exactly 25% of the cases reported are among Negroes.

In Table 5 attempts are made to give a detailed break-down of the number of tuberculosis cases reported by race, sex, and stage of disease and by county in 1949, which can easily be compared with the 1948 report to show progress against the disease.

Central Case Register: An analysis of the central case register shows that 88.6% of the population of the State is under visible control. Out of the total State population of 2,547,500, counties comprising 2,257,754 people are represented in the case register. There have been six counties added to the case register in 1949—Jefferson, Madison, Marion, Palm Beach, Putnam and Taylor counties, with a total of 792 cases of tuberculosis as their given case load. (See Table 6).

Total cases reported in 1949 were 3,199 including cases on register as well as cases and counties not in the register. In spite of the fact that there has been an addition of 3,199 cases reported in 1949 and the addition of six counties with a total of 792 cases, there are 52 less cases in the register. This is due to (1) removal of 884 cases mostly reported by selective service which had not received a current examination in five or more years from the register, and (2) removal of 2,249 cases from the register and placed in the regular closed files on the basis of deaths, cases found to be non-tuberculous, cases which we were unable to locate, cases other than far-advanced cases which had been arrested for a period of five years, and cases who had moved out of the State.

Table 7 shows an analysis of the cases in the central tuberculosis case register as of December 31, 1949, in relationship to activity. It should be pointed out that there were 695 cases shown on the register who had positive sputum and were active in the home. This compares very favorably with the 871 cases who had positive sputum in 1948 in the home. This shows that progress has been made in removing these public health problems from the home. There were 548 cases residing at home with what was considered negative sputum, who were nevertheless considered as active cases, which is an increase over 1948. There were 839 cases whose sputum status was undetermined and who were considered active.

According to the appearance of the register at this time there are, potentially, 3,202 cases of tuberculosis who are not hospitalized and who, in the opinion of the Bureau, should be hospitalized. In addition, there were 1,242 cases in the Sanatoria as of December 31, as compared with 1,109 cases during the same period in 1948. This table also shows the percentage of the patients per counties with their current diagnostic status. It is noted that, when compared with the 1948 Annual Report, in almost all counties there has been an appreciable increase in the number of patients with current examination status. For instance, Alachua County has practically doubled its percentage of patients who have been examined within the last six months, and at the present time is running 81.8% current. It should be pointed out that the percentage of patients with current examination status during the year of 1948 was 28.1% whereas the patients with current examination status during 1949 has increased to 68.2% which is the most encouragement that has been afforded at any time since the installation of the central case register.

X-Ray Diagnostic Clinics: All of the permanent X-ray diagnostic clinics in local health departments as well as the clinics operated in small counties have shown a marked increase in activity over 1948. During 1949 there were 16,677 X-rays examined in the Bureau of Tuberculosis Control mostly from the units owned and operated by health departments as well as from consultation X-rays sent in by private physicians. This compares very favorably with 13,538 X-rays interpreted in 1948. The total number of clinic and consultation X-rays interpreted during the year 1949 has been divided into age, sex, color, stage of disease and other pathology. This is shown in Table 8. Of the X-rays examined in Bureau clinics a total of 20.4% of the films interpreted showed evidence of tuberculosis involvement and an additional 6.8% showed evidence of suspicious tuberculosis pathology.

Mass Case Finding: One of the principal activities of the Bureau of Tuberculosis Control during the year of 1949 has been in the field of mass X-ray surveys using portable and mobile X-ray equipment. Concentration on community-wide X-ray services has been continued. However, in 1949 there were only 394,626 X-rays taken in the general population whereas in 1948 there were 415,599 miniature films taken. The principal reason for this is that the units have gone into more of the smaller counties during the last year than in previous years since it is felt that they should be given the services as well as the larger counties. During the third year of operation of the four mobile and portable survey units carried into communities by the State Board of Health, the three stationary units operated by the Dade County Health Department, the Hillsborough County Health Department and the Orange County Tuberculosis and Health Association, accounted for the examination of 394,626 as above stated. Examinations made during 1949 when compared with 1948 shows that there were fewer definite cases of tuberculosis diagnosed and more cases diagnosed as suspicious of tuberculosis which is probably an individual variation of interpretation and not a significant factor. However, it was found that the amount of non-tuberculous pathology demonstrated increased over 50% when compared with 1948. Table 9 shows a summary of the last X-ray surveys along with 14"x17" X-ray follow up and the percentage of follow up. This table also shows the number of patients for whom hospitalization was recommended after follow up and those for whom clinical study alone was advised. In 1949 hospitalization was recommeded for 336 cases and clinical study was recommended in 1,069 cases.

COOPERATION WITH TUBERCULOSIS AND HEALTH ASSOCIATIONS

As has been the case since the expanded tuberculosis control program started in Florida, the Florida Tuberculosis and Health Association and the County Tuberculosis and Health Association have participated whole-heartedly, in the cooperative effort for community organization in our X-ray surveys. A great deal of credit for this program must be given to the excellent work of this voluntary organization which has done so much to stimulate the advancement of tuberculosis control programs throughout the entire country.

TUBERCULOSIS ACTIVITIES IN LOCAL HEALTH DEPARTMENTS

In reviewing the monthly activities report compiled by the Bureau of Local Health Services, a rather definite increase is observed in activity insofar as tuberculosis nursing services in local health departments is concerned. Records from the Bureau of Local Health Services show there were 23,874 clinic visits made during 1949 which compares very favorably with the 19,074 visits made in 1948. This report also reveals that there were 29,400 field nursing visits made to tuberculous patients which is a definite increase over the 25,789 visits made in 1948. In addition to the field nursing visits and the clinic visits, there were 9,038 office nursing visits made in 1949. This report also shows that there were 1,138 patients hospitalized through local health departments during 1949.

COORDINATION OF THE PROGRAM WITH THE STATE TUBERCULOSIS BOARD

It has long been realized that in an adequate tuberculosis control program there is no separation between case finding, hospitalization and follow up as well as welfare and rehabilitation. It has been demonstrated in the State of Florida that a coordinated program of all official agencies having to do with tuberculosis control can be accomplished by the fact that the Director of the Bureau of Tuberculosis Control has been on loan during the entire year of 1949 to the State Tuberculosis Board as Acting Chief Medical Director of that organization. During that time there has been a much closer tie-in between the activities of the Sanatoria and the State Health Department than ever has been present before. It is hoped that when the full-time medical director is appointed the same close relationship and cooperation will be maintained.

In addition, there is a full-time Tuberculosis Coordinator who operates between all the various agencies having to do with tuberculosis control and who is employed jointly by the State Tuberculosis Board and the State Board of Health.

SUMMARY

In this report the objective has been to bring out trends in mortality and morbidity from tuberculosis and the increase in activity which can be reported for the year of 1949. It can certainly be said that the mortality has shown a decided decrease and the activities of the Bureau has shown a very definite increase. One of the greatest problems, however, still remains in the rehabilitation and welfare assistance to the tuberculous patient and to his family. The statement in last year's report that "the ultimate control of tuberculosis in the State of Florida, therefore, would seem to resolve itself into a relatively simple formula, and that is to provide a bed for the isolation and treatment of every known case of tuberculosis in the State" is here repeated for further emphasis. It should be added that the ultimate control of tuberculosis in the State of Florida should provide adequate welfare assistance to the tuberculous patient and his family and a more thorough program of rehabilitation to insure that once the patient has left the Sanatorium an arrested case, he will continue to remain well after he returns to his home.

TABLE 1

RECORDED DEATHS FROM TUBERCULOSIS (ALL FORMS) AND DEATH RATES PER 100,000 POPULATION, BY COLOR, FLORIDA—1917-1949

Year	Total		White		Colored	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
1949	659	26.3	301	15.3	358	63.4
1948	720	29.1	332	17.5	388	66.9
1947	760	31.6	371	20.2	389	68.0
1946	687	29.4	333	18.8	354	62.7
1945	701	30.9	340	19.9	361	64.9
1944	791	36.0	369	23.1	422	70.8
1943	834	39.2	363	22.9	471	87.7
1942	859	41.8	360	23.6	499	93.6
1941	916	46.1	362	24.8	554	105.5
1940	961	50.3	379	27.2	582	112.4
1939	921	49.7	376	27.9	545	107.3
1938	987	55.0	407	31.4	580	116.4
1937	966	55.6	400	32.0	566	115.8
1936	905	53.9	387	32.3	518	108.2
1935	903	55.7	397	34.5	506	107.9
1934	953	60.1	381	33.9	572	123.9
1933	1,039	66.9	398	36.1	641	142.1
1932	1,093	71.5	395	36.5	698	156.2
1931	1,067	70.8	427	40.1	640	144.8
1930	1,015	68.6	432	41.3	583	134.0
1929	1,014	70.8	416	41.3	598	140.6
1928	1,102	79.7	481	49.7	621	149.5
1927	1,097	82.2	483	49.8	634	156.4
1926	1,187	92.3	519	58.3	668	169.0
1925	999	80.8	426	50.0	573	148.7
1924	1,054	88.7	457	56.2	597	159.1
1923	1,079	94.7	490	63.3	589	161.2
1922	1,019	93.5	440	59.9	579	163.0
1921	951	91.3	401	57.6	550	159.3
1920	1,016	102.3	423	64.3	593	176.8
1919	993	103.7	461	73.4	532	161.6
1918	1,084	115.9	494	81.2	590	180.4
1917	1085	118.9	472	80.3	613	188.7

FIGURE 1

TUBERCULOSIS DEATH RATES, BY COLOR, FLORIDA, 1917-1949

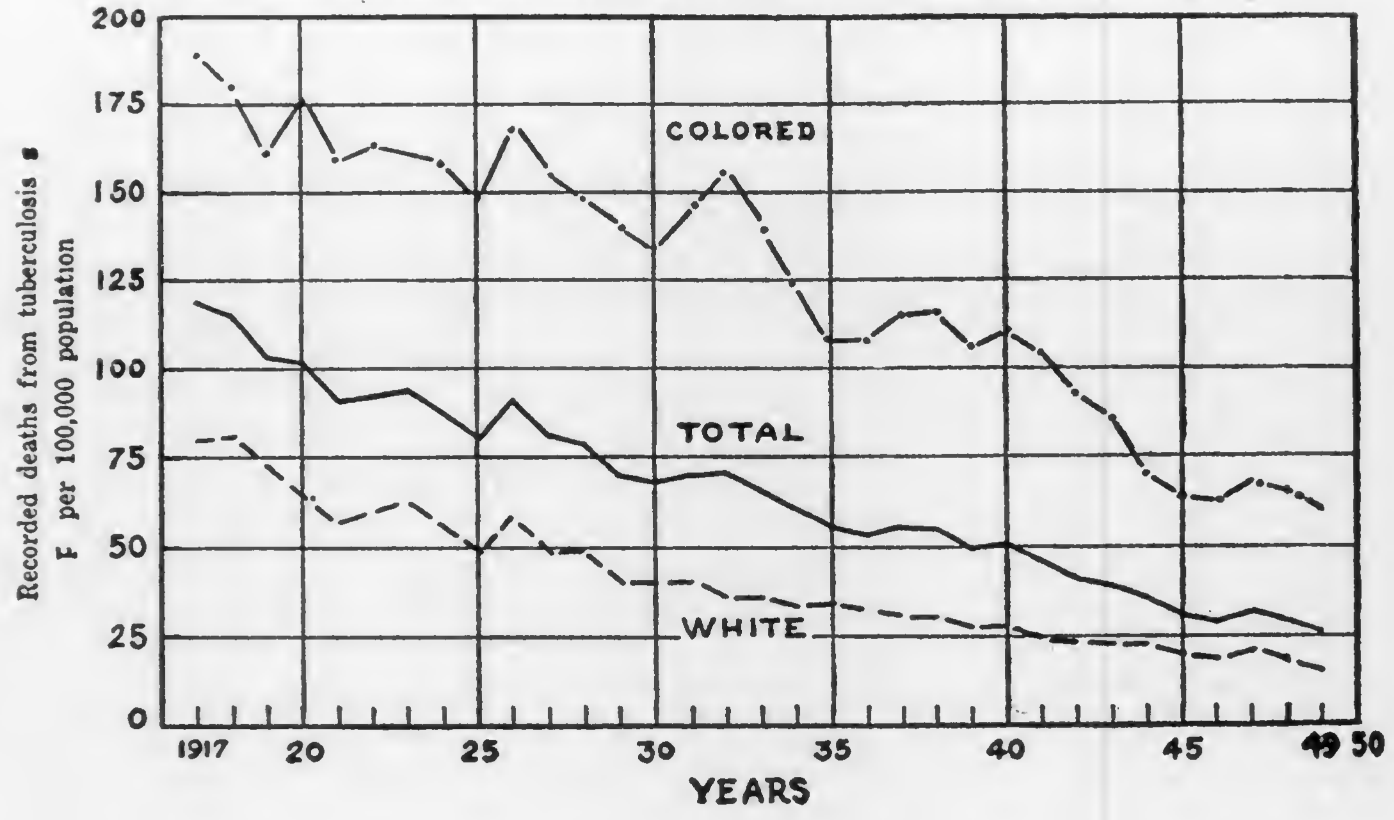


TABLE 2

REPORTED TUBERCULOSIS CASES BY SOURCE OF REPORT, FLORIDA, 1949

Sources of Report	Cases	Percent
TOTAL	3,198	100.0
County or City Health Department	2,612	81.7
Sanatoria	132	4.1
Private Physician	27	0.8
General Hospitals	37	1.2
Out of State Reports	106	3.3
Death Certificates	154	4.8
Veterans Administration Hospitals	89	2.8
Florida State Prison	23	0.7
Florida State Hospital	15	0.5
U. S. Recruiting Stations	3	0.1

FIGURE 2

TUBERCULOSIS CASES REPORTED BY SOURCE OF REPORT FLORIDA 1948 AND 1949

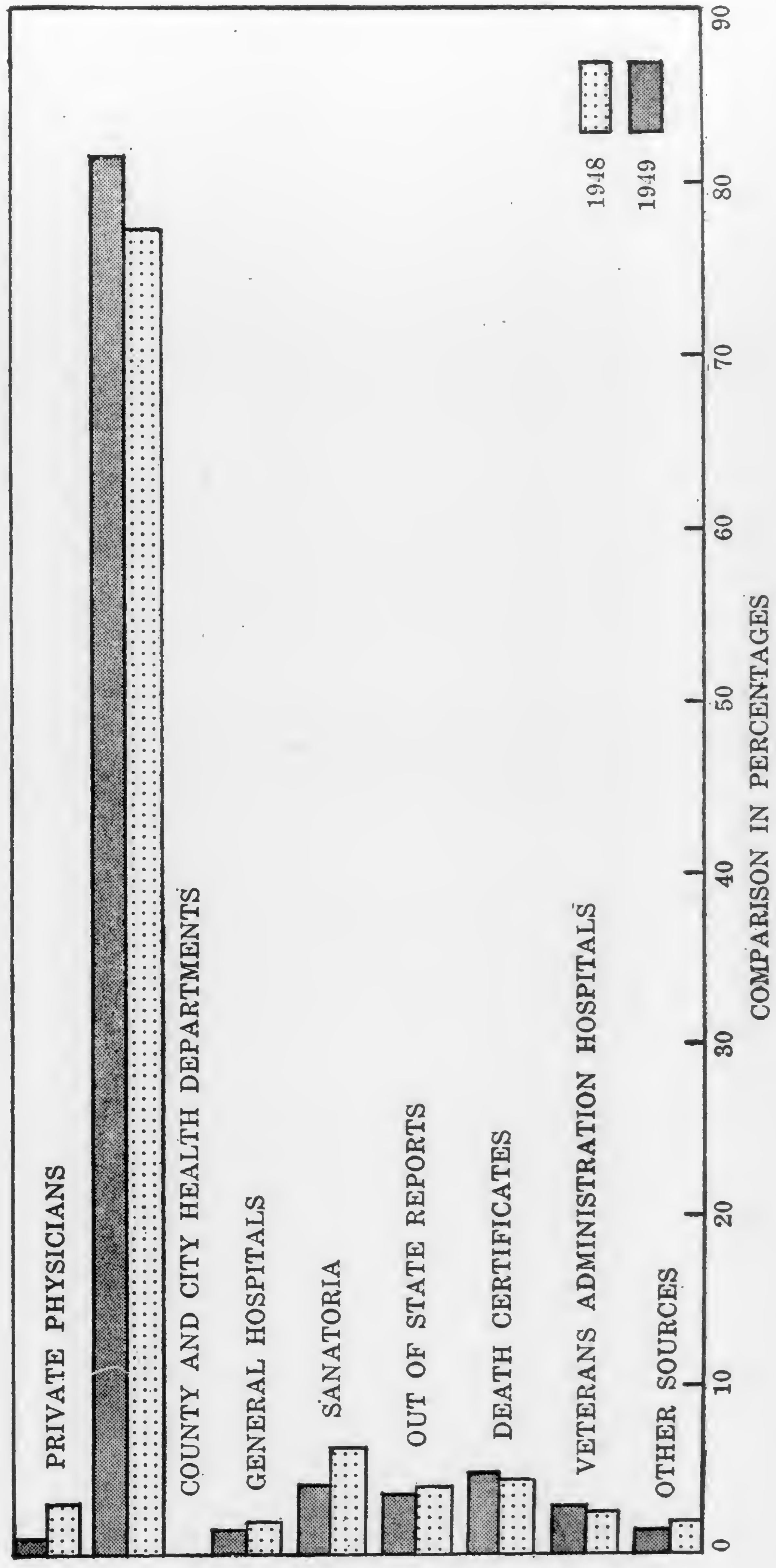


TABLE 3

TUBERCULOSIS CASES REPORTED BY RACE, SEX, STAGE OF DISEASE AND BY COUNTY, FLORIDA, 1949

COUNTY	Total Cases	CASES REPORTED										
		RACE AND SEX					STAGE OF DISEASE					
		WHITE		COLORED								
		Male	Female	Male	Female	Unknown	Primary	Minimal	Moderately Advanced	Far Advanced	Non Pulmonary	Stage Unknown
TOTAL	3,198	1,467	893	488	312	38	54	1,050	1,024	697	68	305
Alachua	58	17	17	15	8	1	5	20	18	8	2	5
Baker	7	4	1	2	—	—	—	—	1	2	—	4
Bay	67	32	25	2	8	—	—	27	25	10	1	4
Bradford	17	12	4	—	1	—	—	7	5	5	—	—
Brevard	21	9	7	3	2	—	—	3	13	3	1	1
Broward	69	26	15	19	9	—	3	20	24	15	1	6
Calhoun	13	7	6	—	—	—	—	2	3	6	—	2
Charlotte	2	—	1	—	1	—	—	1	1	—	—	—
Citrus	11	3	4	2	2	—	—	1	6	1	—	3
Clay	16	7	7	1	1	—	1	3	10	1	—	1
Collier	1	—	1	—	—	—	—	—	—	1	—	—
Columbia	14	2	3	7	2	—	1	—	4	6	—	3
Dade	433	217	137	45	27	7	—	100	142	145	7	39
DeSoto	8	5	1	2	—	—	—	2	5	—	—	1
Dixie	4	2	—	1	1	—	—	1	2	1	—	—
Duval	526	217	123	111	74	1	16	145	174	118	23	50
Escambia	100	50	25	15	10	—	—	15	49	26	1	9
Flagler	2	1	—	1	—	—	—	—	2	—	—	—
Franklin	3	—	1	1	1	—	—	1	1	1	—	—
Gadsden (Ex.)	17	2	4	6	4	1	—	4	6	6	—	1
State Hospital	24	13	8	—	2	1	—	6	6	5	—	7
Gilchrist	3	1	2	—	—	—	—	2	—	1	—	—
Glades	3	2	—	—	1	—	—	2	1	—	—	—
Gulf	6	—	6	—	—	—	—	—	4	1	1	—
Hamilton	7	—	1	1	5	—	—	—	2	3	—	2
Hardee	7	4	—	2	1	—	—	3	—	3	1	—
Hendry	11	3	5	—	2	1	—	3	4	2	—	2
Hernando	2	1	—	1	—	—	—	—	1	—	—	1
Highlands	20	9	3	3	5	—	1	8	7	3	—	1
Hillsborough	235	107	71	34	18	5	1	76	71	51	7	29
Holmes	7	2	5	—	—	—	—	1	4	2	—	—
Indian River	12	7	2	2	1	—	1	3	1	5	—	2
Jackson	27	13	5	4	5	—	—	8	6	8	1	4
Jefferson	1	—	—	—	1	—	—	—	—	—	—	1
Lafayette	1	—	—	—	1	—	—	—	—	1	—	—
Lake	68	31	27	4	6	—	1	35	14	11	—	7
Lee	18	6	5	2	2	3	—	1	5	4	—	8
Leon	43	12	5	15	11	—	2	8	9	16	2	6
Levy	8	5	—	1	2	—	—	1	2	4	1	—
Liberty	2	—	2	—	—	—	1	—	1	—	—	—
Madison	14	13	—	—	1	—	2	4	4	1	1	2
Manatee	71	42	20	5	4	—	5	28	25	9	1	3
Marion	75	25	19	20	11	—	—	22	28	14	1	10
Martin	9	4	—	3	1	1	—	5	2	2	—	—
Monroe	32	16	11	4	1	—	1	12	8	6	—	5
Nassau	17	3	5	7	2	—	1	3	7	5	—	1
Okaloosa	13	7	4	2	—	—	—	3	3	7	—	—

TABLE 3 (Continued)

TUBERCULOSIS CASES REPORTED BY RACE, SEX, STAGE OF DISEASE AND BY COUNTY, FLORIDA, 1949

COUNTY	Cases Total	CASES REPORTED										
		RACE AND SEX					STAGE OF DISEASE					
		WHITE		COLORED								
		Male	Female	Male	Female	Unknown	Primary	Minimal	Moderately Advanced	Far Pulmonary	Non Advanced	Stage Unknown
Okeechobee	3	1	—	2	—	—	—	1	—	2	—	—
Orange	95	38	30	16	11	—	4	27	28	28	3	5
Osceola	11	5	2	2	2	—	—	2	7	1	—	1
Palm Beach	100	44	23	22	9	2	—	25	38	26	1	10
Pasco	26	14	8	3	1	—	—	6	12	3	2	3
Pinellas	387	222	135	19	9	2	2	261	77	35	2	10
Polk	147	62	34	23	19	9	4	52	40	21	2	28
Putnam	32	16	5	5	5	1	—	7	18	6	—	1
St. Johns	10	6	—	2	1	1	—	—	2	3	1	4
St. Lucie	19	6	4	8	1	—	—	5	6	3	—	5
Santa Rosa	8	2	5	1	—	—	—	3	2	2	—	1
Sarasota	51	27	18	1	4	1	—	15	19	12	—	5
Seminole	33	8	7	12	6	—	—	8	16	6	—	3
Sumter	18	8	7	3	—	—	—	2	12	3	1	—
Suwannee	11	6	1	2	2	—	—	1	—	6	1	3
Taylor	12	2	4	5	1	—	—	4	5	2	1	—
Union	29	18	1	8	2	—	—	17	12	—	—	—
Volusia	69	37	17	10	4	1	2	21	21	17	2	6
Wakulla	1	—	—	—	1	—	—	—	1	—	—	—
Washington	6	3	2	1	—	—	—	2	1	3	—	—

TABLE 4

NUMBER AND PERCENTAGES OF TUBERCULOSIS REPORTED BY AGE GROUP, FLORIDA, 1949

Age Groups	Cases	Percent
Total	3,198	100.0
- 5	35	1.1
5-14	50	1.6
15-24	279	8.7
25-34	532	16.0
35-44	598	18.7
45-54	614	19.2
55-64	498	15.6
65-	504	15.8
Unknown	88	2.7

TABLE 5

NUMBER AND PERCENTAGE OF TUBERCULOSIS CASES BY RACE AND SEX, 1948-49

	1948		1949	
Race and Sex	Cases	Percent	Cases	Percent
Total	3,313	100.0	3,198	100.0
White Male	1,523	46.0	1,467	45.9
White Female	943	28.5	893	27.9
Colored Male	442	13.3	488	15.3
Colored Female	118	8.7	312	9.7
Unknown	118	3.6	38	1.2

FIGURE 4

PERCENTAGE OF TUBERCULOSIS CASES REPORTED BY AGE GROUPS, FLORIDA, 1949

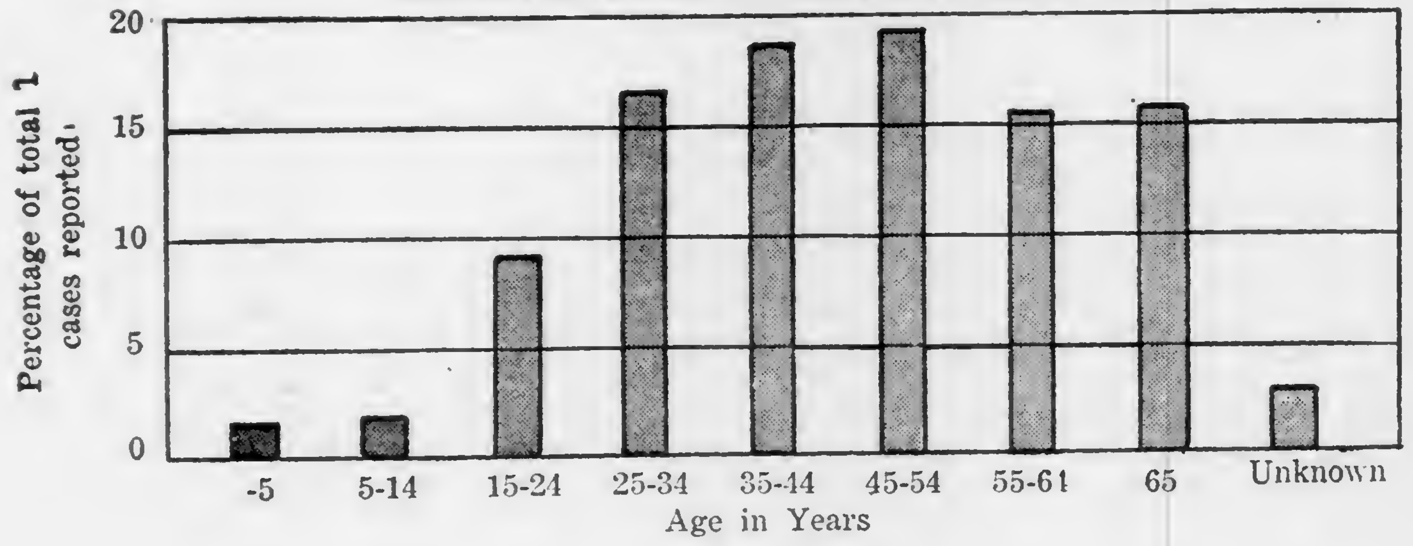


FIGURE 5

COMPARISON OF PERCENTAGE OF TUBERCULOSIS CASES REPORTED BY RACE AND SEX FLORIDA, 1948 AND 1949

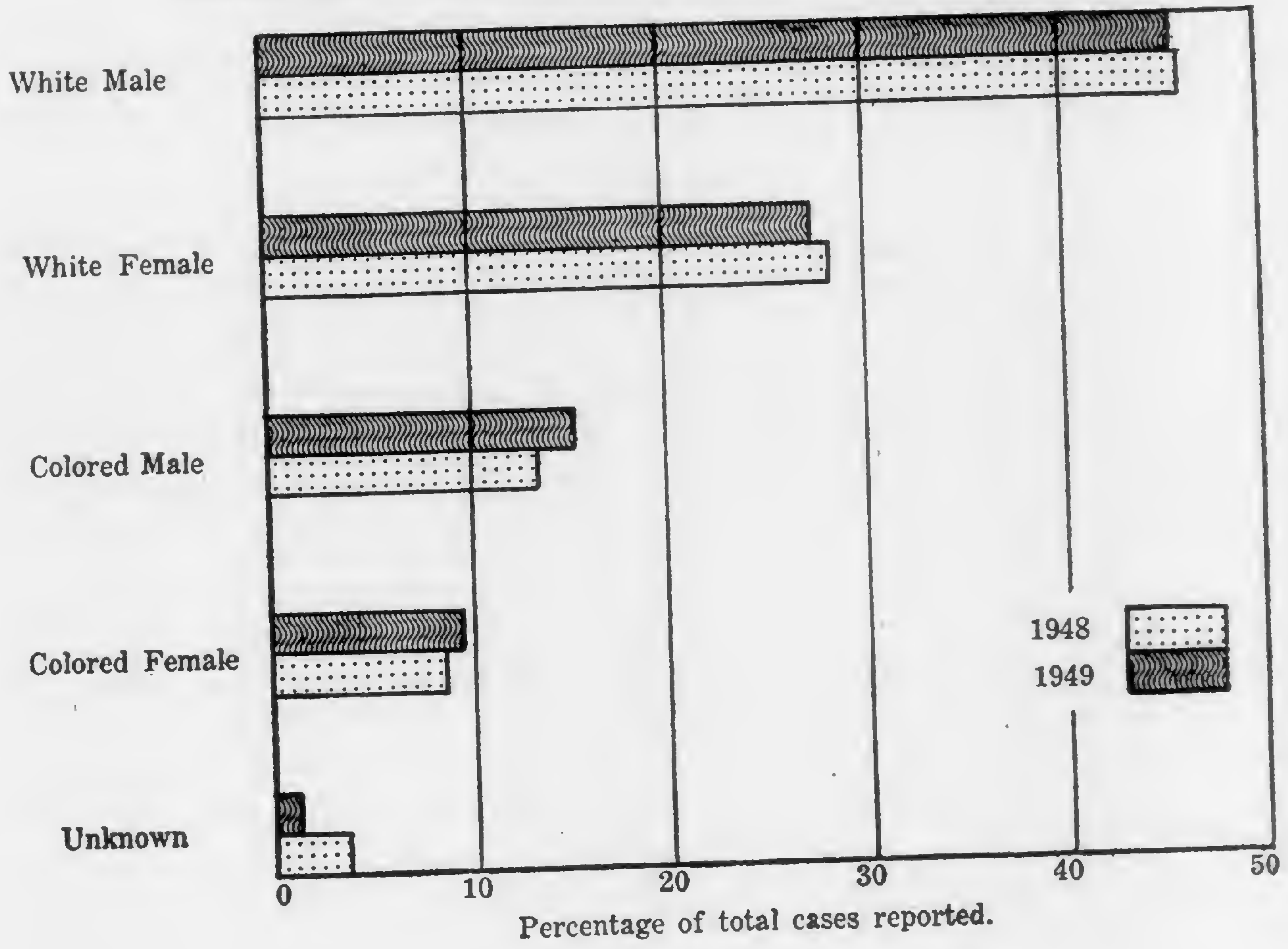


TABLE 6

DATA ON TUBERCULOSIS CASE REGISTER

1949

The 40 Counties in Register represents 88.6% of the population of the State.

Total population of State	2,547,500
Population of Counties in Register	2,257,754

The six Counties added to Register in 1949 were:

Jefferson	23 Cases
Madison	38 Cases
Marion	124 Cases
Palm Beach	487 Cases
Putnam	**66** Cases
Taylor	54 Cases
Total	792 Cases

(As of 12-31-49)

Total Cases Reported in 1949	3,199**
(**This includes cases for the Register, as well as cases in Counties not in the Register.)	
Cases Reported by Death Certificate Only	155**
(**Included in Total Cases Reported.)	
Cases in Register 12-31-49	8,798
Cases in Register 12-31-48	8,850

The 52 loss in cases in the Register from 1948 to 1949, in spite of the addition of 6 Counties with a total of 792 cases, is due to:

(1) The pulling from the Register in 1949 of 884 cases, mostly reported by Selective Service, that had not been reported on in five or more years.

(2) 2,249 cases were pulled from the Register and put in the Regular Closed File. These were closed on the basis of our five reasons for closing cases: (1) Deceased, (2) Cases found to be non-tuberculosis, (3) Cases which are unable to be located, (4) Cases, other than Far Advanced cases, which have been arrested for five years, and, (5) Cases moved out-of-State.

4.8% Reported in 1949 by Death Certificate Only.

4.2% Reported in 1948 by Death Certificate Only.

TABLE 7

ANALYSIS OF CASES IN THE CENTRAL TUBERCULOSIS CASE REGISTER
DECEMBER 31, 1949

COUNTIES	ACTIVE CASES			Q. Act. Cases	Inact. Cases	In Sanit.	Other TBC.	Total Cases	Current In Exam.	% of Pat. Cur. Outside of Sanat.
	Pos. Sputum	Neg. Sputum	Undet. Sputum							
Alachua	9	26	16	42	120	22	1	236	175	81.8
Baker	2	1	2	1	9	3	0	18	11	73.3
Bay	7	17	16	30	72	30	0	172	90	63.4
Bradford	2	3	3	6	13	6	0	33	26	96.3
Broward	16	9	12	20	85	35	1	178	117	81.8
Dade	167	94	140	199	590	213	12	1,415	852	70.9
Dixie	0	0	0	2	6	4	0	12	5	62.5
Duval	30	20	10	35	85	43	1	224	133	73.5
Escambia	36	6	44	17	209	62	2	376	167	53.2
Franklin	1	1	4	1	5	4	0	16	11	91.7
Gadsden	4	3	11	20	35	18	0	91	37	50.7
Gulf	2	1	1	3	10	5	0	22	15	88.2
Hernando	1	2	4	4	5	1	0	17	5	31.25
Hillsborough	93	22	213	85	816	105	3	1,337	867	70.4
Jackson	1	7	13	18	36	25	0	100	38	50.7
Jefferson	0	2	2	2	13	4	0	23	10	52.6
Lafayette	1	0	0	1	3	1	0	6	4	80.
Lake	9	8	6	16	58	16	2	115	50	50.5
Leon	6	5	9	17	88	29	2	156	74	58.3
Levy	4	1	0	4	12	3	0	24	20	95.2
Madison	3	3	1	6	14	10	1	38	22	78.6

TABLE 7 (Continued)
ANALYSIS OF CASES IN THE CENTRAL TUBERCULOSIS CASE REGISTER DECEMBER 31, 1949

COUNTIES	ACTIVE CASES Pos. Sputum	Neg. Sputum	Undet. Sputum	Q. Act. Cases	Inact. Cases	In Sanit.	Other TBC.	Total Cases	Current In Exam.	% of Pat. Cur. Outside of Sanat.
Manatee	3	5	4	24	57	13	3	109	92	95.8
Marion	9	10	6	31	51	16	1	124	101	93.5
Monroe	10	4	5	15	38	7	0	79	59	81.9
Nassau	4	5	0	4	19	6	1	39	29	87.9
Orange	39	50	52	69	287	63	1	561	343	68.9
Palm Beach	34	31	58	78	200	83	3	487	202	50.
Pasco	8	3	3	19	14	1	0	48	42	89.3
Pinellas	37	11	24	73	449	50	3	647	460	77.
Polk	15	22	19	54	194	54	1	359	238	78.
Putnam	1	5	9	7	26	18	0	66	34	70.8
Santa Rosa	3	1	7	2	28	8	1	50	33	78.6
Sarasota	8	7	6	23	46	10	0	100	86	95.5
Seminole	5	7	13	19	42	14	1	101	69	79.3
Sumter	2	3	3	10	10	4	1	33	24	82.8
Suwannee	4	2	0	5	14	11	0	36	24	96.
Taylor	5	5	3	5	24	10	2	54	34	77.3
Volusia	15	18	14	20	89	30	1	187	121	77.1
Wakulla	1	1	2	3	5	3	0	15	8	66.7
Washington	0	2	4	13	9	5	0	33	14	50.
City of Jacksonville	66	48	45	74	256	197	17	703	342	67.6
State Hospital Chattahoochee	32	77	55	43	151	0	0	358	70	19.6
Total	695	548	839	1,120	4,293	1,242	61	8,798	5,154	68.2

TABLE 8
TOTAL NUMBER OF CLINIC AND CONSULTATION X-RAYS INTERPRETED DURING THE YEAR 1949 DIVIDED INTO STAGE OF DISEASE, AGE, SEX AND COLOR, WITH PERCENTAGE OF PATHOLOGY IN THE VARIOUS CATEGORIES.
CURRENT STATISTICS FOR 14" x 17" X-RAYS

COLOR & SEX			First Film	Subsequent Film	Negative	Suspicious	Unsat. Film	Minimal			Moderately Adv.			Far Adv.			Thoracoplasty		Pneumo.		Primary	Other Pathology	Diagnosis Deferred	Total
								Act.	Q.Act.	Inact.	Act.	Q.Act.	Inact.	Act.	Q.Act.	Inact.	Act.	Inact.	Act.	Inact.				
UNDER 5	WH.	(M	44	21	34	10	8	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	6	65
		(F	48	19	41	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	3	67
	COL.	(M	16	19	18	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1	35
		(F	27	8	22	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	35
	UNK.	(M	5	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6
		(F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-14	WH.	(M	329	203	379	58	19	0	2	1	1	1	0	0	0	0	0	0	0	0	46	8	17	532
		(F	369	195	417	57	15	0	2	2	0	1	0	1	0	0	0	0	0	0	35	13	21	564
	COL.	(M	150	122	187	27	8	1	1	2	1	0	0	1	0	0	0	0	0	1	29	4	10	272
		(F	130	123	175	32	5	0	0	1	0	0	0	2	0	0	0	0	0	3	29	3	3	253
	UNK.	(M	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	5
		(F	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15-24	WH.	(M	642	170	621	62	10	7	14	13	12	7	3	8	1	0	0	0	0	2	4	15	33	812
		(F	888	250	953	49	13	13	12	10	6	9	8	5	1	3	0	1	0	9	5	15	26	1,138
	COL.	(M	261	85	253	27	6	4	4	4	4	2	1	8	1	0	0	2	2	1	4	6	17	346
		(F	360	110	378	22	11	2	8	7	5	1	0	7	0	0	0	0	0	0	7	11	11	470
	UNK.	(M	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
		(F	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
25-34	WH.	(M	700	271	660	63	23	11	24	49	13	24	11	11	2	0	1	8	7	13	2	22	27	971
		(F	981	404	1,025	67	16	27	30	65	18	14	18	8	1	1	2	18	0	10	1	26	38	1,385
	COL.	(M	267	61	235	16	4	6	10	9	7	3	2	7	0	0	0	1	2	2	1	9	14	328
		(F	356	113	354	22	12	3	8	10	12	9	5	8	0	1	1	3	0	2	0	7	12	469
	UNK.	(M	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
		(F	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
35-44	WH.	(M	538	272	461	41	10	8	43	74	26	33	18	11	9	3	0	15	0	0	0	23	26	810
		(F	708	258	658	49	11	5	27	72	12	13	23	8	3	4	2	18	0	9	0	26	26	966
	COL.	(M	197	87	152	35	5	3	10	14	6	10	2	11	4	1	0	1	0	3	1	21	5	284
		(F	213	141	230	22	12	5	10	15	4	10	2	7	0	1	0	1	0	3	2	18	12	354
	UNK.	(M	4	1	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
		(F	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

TABLE 8 (Continued)

TOTAL NUMBER OF CLINIC AND CONSULTATION X-RAYS INTERPRETED DURING THE YEAR 1949 DIVIDED INTO STAGE OF DISEASE, AGE, SEX AND COLOR, WITH PERCENTAGE OF PATHOLOGY IN THE VARIOUS CATEGORIES. (Continued)

COLOR & SEX			First Film	Subsequent Film	Negative	Suspicious	Unsat. Film	Minimal			Moderately Adv.			Far Adv.			Thoracoplasty		Pneumo.		Primary	Other Pathology	Diagnosis Deferred	Total
								Act.	Q.Act.	Inact.	Act.	Q.Act.	Inact.	Act.	Q.Act.	Inact.	Act.	Inact.	Act.	Inact.				
45-54	WH.	(M	498	256	304	72	7	9	41	94	23	50	34	16	8	9	0	14	1	7	1	34	30	754
		(F	555	240	505	54	18	5	21	66	3	23	23	3	8	3	0	18	0	2	2	21	20	795
	COL.	(M	154	100	122	21	4	5	10	11	7	15	5	10	2	1	0	3	0	1	0	22	15	254
		(F	117	102	146	14	3	0	4	18	4	7	3	4	1	1	1	0	0	0	1	9	3	219
	UNK.	(M	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
		(F	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
55-64	WH.	(M	460	210	258	50	11	3	33	111	18	55	29	23	11	9	1	11	0	1	0	32	14	670
		(F	405	187	309	38	14	2	27	74	6	27	18	4	5	4	0	5	0	0	2	30	27	592
	COL.	(M	77	65	54	10	6	3	4	10	6	16	2	6	3	1	0	0	0	0	0	14	7	142
		(F	63	48	55	15	5	8	2	9	0	5	2	1	1	0	0	0	0	0	0	14	3	111
	UNK.	(M	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
		(F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 AND OVER	WH.	(M	546	250	284	60	12	6	53	136	24	61	39	13	16	6	0	0	0	0	2	48	33	796
		(F	374	138	195	42	15	1	22	81	5	40	23	8	7	2	0	0	0	0	0	45	19	512
	COL.	(M	75	77	48	15	8	3	7	14	4	8	6	10	5	0	0	0	0	0	0	13	11	152
		(F	57	42	50	17	3	1	4	4	2	5	2	3	0	0	0	0	0	0	0	7	1	99
	UNK.	(M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		(F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AGE UNKNOWN	WH.	(M	672	40	625	22	4	4	11	9	3	6	1	4	2	1	0	0	0	1	0	8	11	712
		(F	75	6	59	1	2	0	2	3	0	2	0	0	3	0	0	1	0	0	0	2	6	81
	COL.	(M	478	19	436	25	3	1	2	1	4	3	1	2	0	0	0	0	2	0	1	8	8	497
		(F	57	3	48	5	0	1	1	0	2	0	1	1	0	0	0	0	0	0	0	0	1	60
	UNK.	(M	13	0	6	2	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	13
		(F	18	0	10	2	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	3	18
		TOTALS	11,948	4,719	10,790	1,140	316	141	451	990	239	464	287	213	94	51	8	120	14	80	206	539	524	16,667
		PERCENTAGE	71.6	28.4	64.7	6.8	1.8	0.9	2.8	5.9	1.5	2.8	1.8	1.4	0.5	0.3	0.04	0.7	0.06	0.5	1.2	3.2	3.1	

TABLE 9

MASS X-RAY SURVEY SUMMARY OF MINIATURE FILM AND 14x17 X-RAY FOLLOW-UP, 1949

COUNTY	70-mm. MASS SURVEYS						14x17 X-RAY FOLLOW-UP																	
	Total Number of 70 mm. Films Taken	Definite TBC.	Suspicious of TBC.	Other Pathology	Total Number of Negative 70-mm. X-rays Taken	Unsatisfactory Films	Total Number of 14x17 X-rays	Negative Films	Calcification	Far Advanced TBC.	Moderately Advanced TBC.	Minimal Tuberculosis	Other Tuberculosis	Suspicious of TBC.	Diagnosis Reserved	Old Healed TBC. Arrested	Other Pathology	Active	Questionable Active	Inactive	Hospitalization	Clinical Study Advised	Old Case	New Case
Alachua County	11,053	8	53	180	10,774	38	56	25	0	5	7	9	0	3	2	3	2	10	4	7	10	11	3	18
University of Florida Alachua County	901	2	9	4	882	4	9	1	0	1	2	0	0	2	0	2	1	0	1	0	0	3	2	1
University of Florida Alachua County	11,432	4	52	47	10,780	549	52	23	0	0	4	8	2	4	2	2	2	2	3	7	1	11	5	7
Baker County	1,228	1	12	31	1,184	0	7	2	0	0	2	1	0	0	0	1	1	1	0	2	1	2	1	2
Bay County	11,027	9	69	132	10,759	58	63	12	0	2	17	17	0	8	3	1	3	10	18	8	15	21	7	29
Bradford County	2,637	0	27	52	2,551	7	22	9	0	0	3	5	0	2	0	1	2	2	2	4	2	6	0	8
Brevard County	7,240	12	55	84	7,074	15	34	3	1	2	6	4	1	9	3	5	0	4	4	4	3	9	6	6
Citrus County	1,393	4	11	17	1,202	159	7	0	0	0	5	0	0	2	0	0	0	3	2	0	3	2	1	4
Clay County	2,108	7	35	93	1,934	39	39	12	0	1	10	3	0	5	1	3	4	6	7	1	8	6	3	11
(Health Department) Dade County**	15,757	34	307	127	15,181	108	212	53	81	14	13	10	6	7	2	0	21	20	11	11	26	59	23	28
(Tbc. Association) Dade County***	42,849	63	491	635	41,546	114	306	113	72	10	18	25	9	27	7	0	25	22	20	12	22	72	5	49
Duval County	56,588	91	633	977	54,615	272	644	206	0	28	115	115	6	68	28	42	36	45	136	67	79	180	212	49
(Naval Air Station) Escambia County	6,064	3	42	64	5,854	101	37	21	0	1	2	4	0	2	1	5	1	3	1	3	1	6	5	2
Flagler County	522	2	5	19	495	1	6	2	0	0	2	0	0	0	1	0	1	1	0	1	1	1	1	1
(Florida State Hospital) Gadsden County*	5,913	17	100	253	5,501	42																		
Glades County	535	1	3	3	527	1	3	0	0	0	2	1	0	0	0	0	0	1	2	0	1	2	1	2
Hendry County	1,707	1	7	19	1,675	5	5	3	0	0	2	0	0	0	0	0	0	1	1	0	2	0	2	0
Hernando County	769	1	8	6	744	10	8	3	0	1	1	1	0	0	1	0	1	0	2	1	1	2	1	2
Highlands County	4,226	6	28	40	4,126	26	32	6	1	2	5	4	2	3	1	5	3	2	6	3	5	6	0	11
High School Hillsborough County	1,322	0	12	11	1,297	2	10	8	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
(Health Department) Hillsborough County**	37,243	205	554	659	35,401	424	389	65	0	22	35	67	2	69	11	38	80	31	34	59	42	80	42	80
Indian River County	3,216	6	26	36	3,142	6	23	6	1	1	7	0	1	3	2	1	1	4	3	1	4	4	4	4
(Florida State University) Leon County	5,819	4	27	24	5,715	49	21	6	1	0	1	5	1	0	4	2	1	0	2	4	0	6	4	2

TABLE 9 (Continued)
MASS X-RAY SURVEY SUMMARY OF MINIATURE FILM AND 14x17 X-RAY FOLLOW-UP, 1949

COUNTY	70-mm. MASS SURVEYS						14x17 X-RAY FOLLOW-UP																	
	Total Number of 70 mm. Films Taken	Definite TBC.	Suspicious of TBC.	Other Pathology	Total Number of Negative 70-mm. X-rays Taken	Unsatisfactory Films	Total Number of 14x17 X-rays	Negative Films	Calcification	Far Advanced TBC.	Moderately Advanced TBC.	Minimal Tuberculosis	Other Tuberculosis	Suspicious of TBC.	Diagnosis Reserved	Old Healed TBC. Arrested	Other Pathology	Active	Questionable Active	Inactive	Hospitalization	Clinical Study Advised	Old Case	New Case
Florida A. & M. College Leon County	1,935	1	10	11	1,913	0	8	3	0	0	3	0	1	1	0	0	0	3	0	0	2	1	0	3
Levy Couty	1,462	0	23	64	1,372	3	20	13	0	0	3	1	1	1	0	0	1	0	3	1	1	3	3	2
Manatee County	10,118	17	133	162	9,797	9	103	28	0	4	21	21	2	9	5	9	4	10	14	21	3	43	14	32
Marion County	10,689	18	102	390	10,105	74	113	28	1	8	24	17	7	4	8	10	6	18	20	11	25	24	10	39
Martin County	2,250	9	20	24	2,195	2	23	4	1	2	5	3	0	4	3	0	1	5	2	3	4	6	6	4
Monroe County	3,137	2	14	15	3,060	46	4	1	0	0	1	1	0	0	0	0	1	1	1	0	1	1	0	3
Nassau County	2,354	2	16	50	2,208	78	24	11	0	1	3	3	0	2	3	0	1	4	1	2	3	3	2	5
Okeechobee County	1,117	0	8	14	1,093	2	6	3	0	0	2	1	0	0	0	0	0	0	3	0	0	3	0	3
(Health Department) Orange County***	15,121	2	350	32	14,269	468	194	109	5	10	15	13	3	13	2	0	24	12	11	15	8	18	11	27
Osceola County	3,051	6	31	41	2,968	5	18	2	0	0	6	3	2	0	2	2	1	2	4	3	4	5	2	7
(Health Department) Palm Beach County****	2,773	1	45	58	2,651	18	4	26	0	1	10	3	0	2	2	0	0	4	8	2	4	17	3	11
Pasco County	4,174	11	43	23	4,082	15	35	6	1	1	6	4	1	9	4	2	1	1	8	2	1	10	2	9
(Canning Plant) Pasco County	1,059	2	9	9	1,037	2	10	3	0	0	3	3	0	1	0	0	0	0	4	2	1	5	1	5
(County Home) Pinellas County	109	0	3	5	101	0	3	1	0	0	0	1	0	0	0	0	1	0	0	1	0	1	0	1
Pinellas County	45,415	186	685	749	42,874	921	693	288	0	15	53	241	4	6	17	31	38	17	87	204	9	300	118	191
(Health Department)*** Polk County ****	27,209	19	254	225	26,369	342	227	112	10	4	20	17	6	22	11	0	25	10	9	35	12	73	9	45
Putnam County	4,975	10	55	104	4,794	12	54	17	0	1	13	4	1	5	5	4	4	10	6	2	14	4	4	14
St. Lucie County	5,918	6	41	49	5,818	4	33	6	1	1	7	5	2	4	5	1	1	1	8	4	1	12	7	6
Sarasota County	10,890	16	121	223	10,519	11	86	22	0	1	20	21	2	7	6	1	6	9	18	15	9	33	18	24
Seminole County	5,192	4	38	157	4,837	156	37	8	0	1	6	1	1	5	4	2	9	2	6	0	3	5	1	7
Sumter County	2,872	3	35	32	2,796	6	31	8	0	0	11	2	0	3	4	2	1	2	7	4	2	11	4	9
Union County	1,257	0	16	27	1,212	2	14	5	0	0	0	4	0	2	2	1	0	1	3	0	2	2	0	4
Totals	394,626	796	4,618	5,977	379,029	4,206	3,765	1,293	176	140	491	648	63	314	152	177	311	280	482	522	336	1,069	543	766

* Follow-Up Completed in the Florida State Hospital
**State Owned, County Operated
***Tuberculosis and Health Association Units Only
****Tuberculosis Owned and County Operated

MASS X-RAY SURVEY AND RESULTS

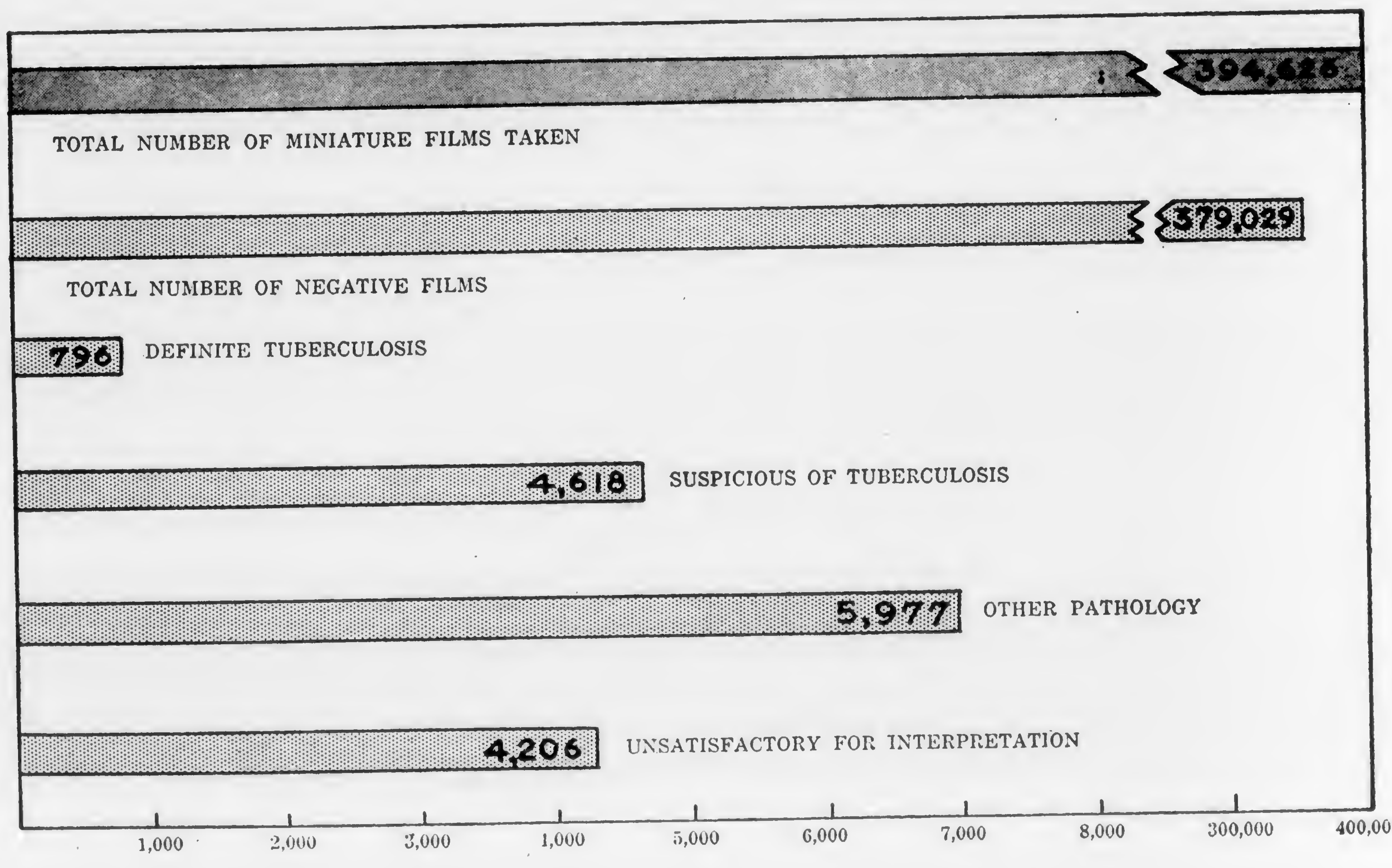
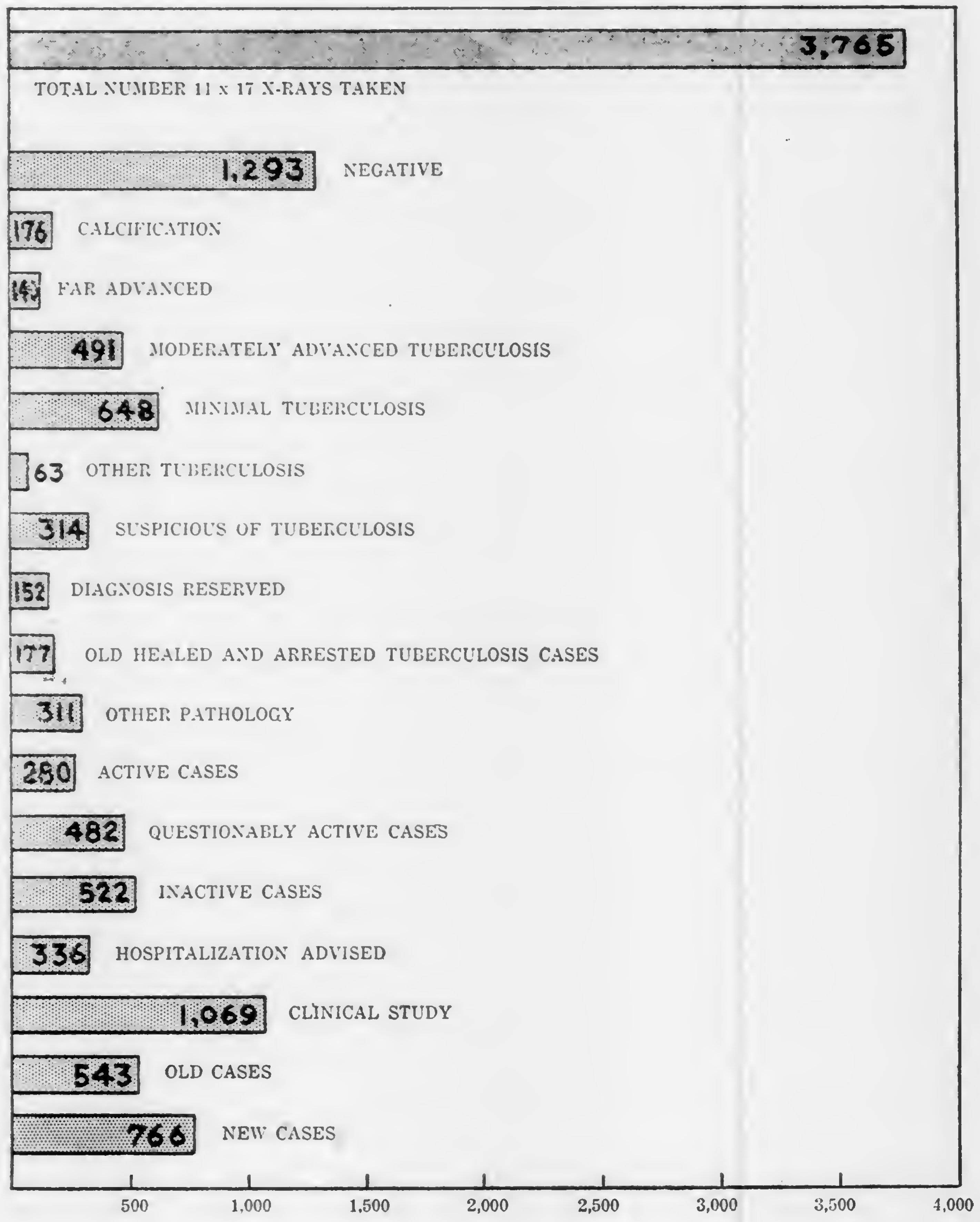


FIGURE 6

FIGURE 7

14 x 17 X-RAY RESULTS FROM THE MASS X-RAY SURVEYS



NUTRITION INVESTIGATION AND SERVICES

Walter Wilkins, Ph.D., M.D., Director

During parts of 1949 there were three staff vacancies which seriously handicapped some phases of the program. In addition, after two vacancies were filled in June, travel restrictions for budgetary reasons were instituted by the State Board of Health beginning in July and continuing for several months. During most of the year services to local health departments were of necessity very limited and consultation services were carried on by correspondence when possible.

INTRODUCTION

The present nutrition program of the Florida State Board of Health was set up to help accomplish two major objectives:

1. To study, analyze, and appraise nutrition problems in Florida, to determine causes of the major conditions found, and to evaluate methods of prevention.

2. To assist local health departments and other agencies by demonstration and other means in appraising nutrition problems among population groups with whom they work, and to aid them in utilizing available information effectively in the solution of such problems.

Nutrition is a relatively new field for public health agencies. It is only during the past 15 years that most state health departments have included it among the channels through which they attempt to improve the public health. During the past 15 years there has been increasing interest in getting the basic clinical facts and setting up educational programs based on the facts.

Florida is one of the few states which have taken definite steps toward putting public health nutrition work on as sound a basis as that of other public health activities. The nutrition unit is still very small, however, and must of necessity avoid scattering its efforts over too many activities and areas at present. Most problems are studied and appraised on a local basis with the realization that the findings will be essentially applicable to many surrounding areas within the state. It is hoped that consultation, demonstration, and educational services can be expanded and extended gradually.

SURVEYS, DEMONSTRATIONS, AND EVALUATION STUDIES DURING 1949

1. Nutrition in Pregnancy—In cooperation with Bureau of Maternal and Child Health, and the Alachua County Health Department.
2. Nutrition and Hookworm Disease.
3. Fluoride in relation to decayed, missing, and filled teeth among high school students in Southwest Florida.
4. Vitamin B1 in relation to speech defects—Cooperative study with Speech Department, University of Florida.
5. Vitamin A and Follicular Conjunctivitis in School Children—Cooperative study with Nutrition Department, School of Home Economics, Florida State University, Leon County.
6. Anemia in school children.

1. *Nutrition in Pregnancy:* In March, 1949, in cooperation with the Bureau of Maternal and Child Health and the Alachua County Health Department, a study was begun on the nutrition problems of pregnant women. Prenatal clinics in Gainesville, Alachua, and Waldo are participating. At the end of the year, 413 women in Alachua County had received these services. These were distributed by clinics as follows:

Gainesville	347
Alachua	46
Waldo	20

Of the more tangible or easily-recognized signs and symptoms, anemia and over-weight were found to be most common. Diet records show too much carbohydrate (starchy and sweet food) is eaten to the neglect of protein and the nutrients contained in fruits and vegetables.

The laboratory work on blood has been limited to hemoglobin determinations, red blood cell volume (hematocrits), red blood cell counts, blood smears, and sedimentation rates. The first three are being done in duplicate on each patient on each visit. This work is still in progress and a complete report cannot be made at this time; however, some significant findings are given below:

AVERAGE VALUES FOR HEMOGLOBIN, RED BLOOD CELL VOLUMES, AND RED BLOOD CELL COUNTS

	First Prenatal Visit	First Postpartum Visit
Average hemoglobin in grams per 100 cc.	10.1	11.0
Average Red Blood Cell Volume in per cent	36.5	39.5
Average Red Blood Cell Count in millions per cu.mm.	3.67	3.87

DISTRIBUTION OF VALUES FOR HEMOGLOBIN, RED BLOOD CELL VOLUMES, AND RED BLOOD CELL COUNTS

Hemoglobin (413 patients)		Red Blood Cell Volume (376 patients)		Red Blood Cell Count (297 patients)	
Above 12 gms.	8%	40 or above	20%	Above 4 million	36%
10 to 12 gms.	45%	35 to 40	48%	3 to 4 million	54%
Below 10 gms.	47%	Below 35	32%	Below 3 million	10%

One of the problems encountered is to have the patients visit the clinic early in pregnancy. Very often the first visit is made during the last 3 months of pregnancy and, not infrequently, anemia has progressed to an alarming degree by this time. Also, on the first visit, excess weight is sometimes almost "beyond repair" for the existing pregnancy.

It is a well-known fact that there is a "tendency" to anemia during pregnancy, especially during the second three months. Frequently the physician, through lack of diagnostic facilities and other limitations, makes two assumptions: 1. that such anemias are usually nutritional in origin and, 2. that administration of large doses of iron will prevent or correct them. While the former often may be true, the work done so far in Alachua County indicates that *treatment with iron alone* has little or no effect on preventing or improving such anemias in these patients. In this study, the women receiving different forms of iron alone have shown no more evidence of blood regeneration than have those receiving a placebo (similar substance without iron). The importance and application of this finding can be stated as follows: Do not depend on iron alone to prevent or correct anemia of pregnancy. Other phases of the study are in progress and will be reported later.

2. *Nutrition and Hookworm Disease:* Ever since the great amount of work was done on hookworm disease in the early 1900's it has been assumed by most public health workers that this infestation was alone responsible for the accompanying anemia. During the past few years, however, growing interest has been manifested in malnutrition per se, as an important contributing cause in such anemias.

To study and demonstrate the effect of improved nutrition in hookworm disease special feeding programs have been carried out for 11 children *before* the usual hookworm treatment was given. Menus high in protein, vitamins and minerals were used for varying periods. The results are summarized below:

THE EFFECT OF IMPROVED NUTRITION ON HEMOGLOBIN LEVELS OF CHILDREN WITH HEAVY HOOKWORM INFESTATIONS

Name	Age	Sex	Weeks fed	Initial hemoglobin level grams	Hemoglobin after special feeding before "treatment"	Increase in hemoglobin level Gms.	Increase in hemoglobin level Per cent
B. O.	10	M	3	4.3	5.7	1.4	33
K. O.	9	M	3	4.7	8.0	3.3	70
W. O.	5	M	3	6.5	10.2	3.7	57
C. S.	8	M	5	4.3	8.9	4.6	107
J. S.	7	M	5	5.3	9.0	3.7	70
B. S.	10	M	5	5.0	8.5	3.5	70
G. S.	11	F	5	9.5	12.2	2.7	28
L. A.	10	M	6	2.5	9.0	6.5	260
H. R.	12	M	12	5.2	10.9	5.7	110
P. R.	6	F	12	3.1	10.9	7.8	251
A. R.	3	F	12	1.8	8.4	6.6	366

Thus hemogoblin levels increased as much as 366 per cent in spite of the fact that the worms had not yet been removed. In all such anemias there is a dynamic equilibrium between:

1. Blood loss
2. Blood regeneration

As a child becomes more and more anemic blood loss is progressing faster than blood regeneration. To overcome the anemia, conditions must be reversed so that blood regeneration is greater than blood loss.

Hookworms, obviously, cause blood loss of varying degrees but getting rid of the worms is only the first step in *correcting* the condition. Obviously, when blood loss is increased by hookworms and blood regeneration is at the same time hampered by lack of blood-building nutrients, anemia is likely to progress faster and become more marked than when only one of those conditions is present.

If abnormal blood loss is stopped by removing the worms, and food intake is improved, the anemia is overcome faster and a higher final blood hemoglobin is reached than when only one of these corrective measures is employed.

3. *Fluorosis in Relation to Decayed, Missing and Filled Teeth*: During the past few years there has been a great deal of interest in the relationship of nutrition to tooth decay. Among the food elements which are known to affect the teeth for better or for worse is the element, fluorine, which is found to varying degrees in some soils and natural waters. Too much fluorine is known to affect the teeth adversely (fluorosis or mottled enamel) while small amounts are coming to be recognized as beneficial. To take advantage of the latter fact, a number of cities and towns in Florida have been considering adding fluorine (as sodium fluoride) to their water supplies. It was found some 15 years ago (1935) from studies carried out by the Florida State Board of Health and the Department of Chemistry of the University of Florida that fluorides occurred naturally in varying amounts in many Florida water supplies.

Because of this interest in fluorine in Florida water supplies, a brief survey was made of the teeth of high school students in several areas which were found to have around 1 or 2 parts per million of fluorine in their water supplies. In this survey 471 high school students were examined. Of these, only 172 had used the same city water since birth. These students averaged about 15 years in age and thus most of them were born near the time when the above mentioned survey was made in 1935.

Findings on the latter group are summarized below:

Town	Number Children	Average Degree of mottling	Total DMF*	Average DMF*	Median DMF*	Fluorine content of water p.p.m.
Wauchula	16	0.25	41	2.56	1.2	.84
Bowling Green	4	0.00	4	1.00	0.0	1.05
Ft. Myers	35	0.14	121	3.45	3.0	1.20
Palmetto	10	0.70	11	1.10	0.0	1.25
Sarasota	35	0.89	86	2.45	1.0	1.35
Arcadia	13	0.62	43	3.30	2.0	1.70
Bradenton	46	0.67	166	3.60	2.0	1.75
LaBelle	13	0.77	27	2.07	1.0	2.05
TOTAL	172		499	2.90		1.39

*Decayed, missing, or filled permanent teeth.

A more comprehensive survey had been planned originally in cooperation with the Division of Oral Hygiene. However, the directorship soon afterward became vacant and this brief survey was made by Nutrition Investigations and Services alone.

4. *Vitamin B_1 in Relation to Speech Defects:* During the past year a cooperative study has been under way by the Nutrition Unit of the State Board of Health and the Speech Department of the University of Florida. Both groups had independently observed that stuttering sometimes seems to be related to the nutritional condition of children and it was decided to set up a cooperative preliminary study on this problem. This joint endeavor was begun in the fall of 1949 and is still under way. Only a progress report can be given at this time.

In brief, the plan was as follows:

It was announced in Gainesville that young children who stuttered would be accepted for study. A number of parents asked that their children be included. It was explained to the parents that the children would be divided into two groups, one to receive three vitamin B1 tablets a day and the other to receive 3 placebo (no drug) tablets (administered by the parent in each case). At the end of a specified time the groups would be reversed. Any changes in speech would be observed by the parents and reported at regular visits of a staff member (graduate student). Of course, in no case did the parent know whether his child received the vitamin first and the placebo last or vice versa.

Cooperation of both parents and children has been good and much interest has been shown in the study. To date, the results have been encouraging and the number of children participating is increasing. Final conclusions will have to await further progress.

5. *Vitamin A and Follicular Conjunctivitis in School Children:* During the latter part of 1948 and 1949 a cooperative study on Vitamin A and follicular conjunctivitis in school children was carried out by the Nutrition Unit of the State Board of Health and the Nutrition Department of the School of Home Economics at Florida State University. Analysis of the results is still in progress. However, the tables below give summaries of the levels of vitamin A found, and carotenoids before therapeutic testing was begun.

BLOOD SERUM VITAMIN A LEVELS IN CHILDREN WITH AND WITHOUT FOLLICULAR CONJUNCTIVITIS

	Vitamin A Content of Blood Serum in micrograms per 100 cc.		
	Range	Average	Median
No follicular conjunctivitis	3 — 110	31.9	27
Mild follicular conjunctivitis	3 — 70	26.6	25
Moderate follicular conjunctivitis	3 — 63	25.8	23
Severe follicular conjunctivitis	2 — 17	23.0	17

DISTRIBUTION OF BLOOD SERUM VITAMIN A LEVELS IN CHILDREN WITH AND WITHOUT FOLLICULAR CONJUCTIVITIS

	Below 20 mcg. per 100 cc.		20 - 40 mcg. per 100 cc.		Above 40 mcg. per 100 cc.	
	No.	%	No.	%	No.	%
No follicular conjunctivitis	34	33	41	40	27	26
Mild follicular conjunctivitis	31	36	39	46	15	18
Moderate follicular conjunctivitis	36	37	39	40	22	23
Severe follicular conjunctivitis	16	64	3	12	6	24

BLOOD SERUM CAROTENOIDS IN CHILDREN WITH AND WITHOUT FOLLICULAR CONJUNCTIVITIS

	Carotenoid Content of Blood Serum in micrograms per 100 cc.		
	Range	Average	Median
No follicular conjunctivitis	8 — 216	82.6	75
Mild follicular conjunctivitis	20 — 169	76.1	74
Moderate follicular conjunctivitis	25 — 198	84.3	74
Severe follicular conjunctivitis	22 — 144	68.9	65

DISTRIBUTION OF CAROTENOIDS IN CHILDREN WITH AND WITHOUT FOLLICULAR CONJUNCTIVITIS

	Below 60 mcg. per 100 cc.		60 - 90 mcg. per 100 cc.		Above 90 mg. per 100 cc.	
	No.	%	No.	%	No.	%
No follicular conjunctivitis	30	29	35	34	37	36
Mild follicular conjunctivitis	28	33	34	40	23	27
Moderate follicular conjunctivitis	30	31	29	30	38	39
Severe follicular conjunctivitis	12	48	8	32	5	20

6. *Anemia in School Children:* Limited surveys on anemia in school children were carried out in cooperation with several health departments including those of Washington, Suwannee, Nassau and Leon. In each instance the purpose was to "sample" the prevalence of anemia in the area in order that preventive measures might be more intelligently planned and carried out. Very severe anemias were almost always found to be limited to children with hookworm disease but large numbers of children showed hemoglobin levels that were definitely below the usual optimal standards. It is believed that many of these can be raised by better eating habits.

PUBLICATIONS, BULLETINS AND OTHER MATERIALS

1. **WHAT YOU EAT MAKES YOUR BABY.**
2. **LOW SALT DIETS AND RECIPES FOR USE IN SPECIAL HEALTH CONDITIONS.**
3. **HEALTH NOTES, December, 1949.**
4. **NUTRITION AND THE SCHOOL CHILD.**
5. **Nutrition Surveys and Appraisals, Chapter 7, entitled "THE ROLE OF HEALTH DEPARTMENTS IN NUTRITION SURVEYS AND APPRAISALS."**
6. **PUBLIC HEALTH INFORMATION PROBLEMS—In Press.**

Carefully prepared materials can be very useful especially when they are brief, attractive, written in simple language, and deal with specific problems. It was felt that the public health nurses of the state could aid the nutrition unit in determining the types of nutrition "helps" that were most needed. In order to get this information a check list was prepared in cooperation with the Division of Public Health Nursing and was placed on the return portion of double post card. These cards were sent to all the public health nurses in the state. They were asked to give their 1st, 2nd, and 3rd choices regarding the problems with which they needed the most help. The response was excellent. The results are tabulated below:

	1st Choice	2nd Choice	3rd Choice	Total
Nutrition for the tuberculosis patient	18	11	13	42
What to add and when to baby's diet	44	16	11	71
Nutrition for the diabetic patient	17	11	14	42
One meal for old and young alike	7	11	11	29
Food needs for the older person	2	9	9	20
Nutrition during pregnancy	16	27	12	55
Bottle vs. breast feeding	2	9	6	17
Toddlers eating problems	7	15	16	38
Adolescent food needs	5	11	9	25
Suggestions for talks	15	20	28	63
What about obesity	3	12	11	26
Low cost foods	26	10	23	59
Vitamins & school lunch (added)	1	0	0	1
Foods to gain weight (added)	0	1	0	1
TOTAL	163	163	163	489

As a result of this help from the nurses, the Bureau of Maternal and Child Health, the Division of Health Information, and Nutrition Investigations and Services cooperated in preparing the first leaflet of the series which is entitled WHAT YOU EAT MAKES YOUR BABY. It is designed to help the prospective mother get the foods that are most necessary for building a strong, healthy baby. It contains a very simple check-list which she can use to "score" or evaluate her daily food intake along with suggestions for improving her eating practices. It is hoped that this leaflet will be widely used. Other pamphlets requested by the nurses will be issued from time to time. Health officers and nurses are being requested to offer suggestions for the improvement of these materials.

The staff assisted in the preparation of a bulletin on LOW SALT DIETS AND RECIPES FOR USE IN SPECIAL HEART CONDITIONS. This material is for use by physicians and nurses in helping "cardiac" patients with their food problems. The bulletin was issued jointly by the Florida State Board of Health, the Miami Heart Association, and the Florida Heart Association.

HEALTH NOTES for December 1949 was the second "Nutrition Issue" put out during the past two years. It contained brief summaries of surveys, studies, and nutrition education activities carried on during recent months. It also included practical suggestions to parents, teachers, physicians, nurses, and others for improving the "nutritional health" of children.

A paper given by the director at the Pediatric Conference for Health Officers and Nurses, entitled, NUTRITION AND THE SCHOOL CHILD was mimeographed and distributed to health workers throughout the state.

In May, 1949, a bulletin on Nutrition Surveys and Appraisals was issued by the Food and Nutrition Board of the National Research Council. The chapter on THE ROLE OF HEALTH DEPARTMENTS IN NUTRITION SURVEYS AND APPRAISAL was prepared by the director and staff members of Nutrition Investigations and Services. This bulletin is for use by those working with nutrition problems of population groups. It is published and sold at cost ($1.50) by the National Research Council, 2001 Constitution Avenue, Washington, D. C. Copies are available to all local health departments.

During the summer two recent graduates in public health nutrition from other states worked for two months with the unit, as affiliate staff members, without cost to the state. Three "affiliates" took part in the regular work of the unit both in the office and in local health units in different parts of the state.

During this period regular seminars were held on subject matter and problems of public health nutrition. These were conducted by the director and all staff members participated. On completion of this voluntary work in Florida each prepared a summary of her work with the Nutrition Unit.

Plans have been made with the Nutrition Department of the School of Home Economics at Florida State University for making similar field work in nutrition. This will be on a year-round basis and will serve the double purpose of giving such students practical field experience and at the same time giving the state the extra services incident to such an arrangement.

DIVISION OF DIABETES CONTROL

Malcolm J. Ford, M.D., Director

The Division was formed during the latter part of October, 1949 so that very few activities were possible. The majority of the time was spent in recruitment and training of personnel. The Division took over distribution of insulin to indigent diabetics throughout the State, a function which has been performed by the State Board of Health since 1935. Educational material for diabetes was prepared and distributed to health departments. A monthly newsletter type of bulletin entitled "Timely Topics" was prepared and mailed to diabetics throughout the State.

Demonstration Unit

Since February, 1947, a demonstration unit has been active in Duval County as a cooperative project of the U. S. Public Health Service, Florida State Board of Health, Duval County Health Department and Jacksonville Department of Public Health. Plans are under way for merging the activities of this demonstration into that of the new Division of Diabetes Control. Personnel assigned to the unit were as follows:

One Medical Officer

Two Nurses

One Nutritionist—Dietitian

Two Laboratory Technicians

Two Stenographers

The Director of the demonstration unit has been loaned to the State Board of Health by the Public Health Service to be the Director of the Division of Diabetes Control. Assistance in special projects are also given by professional and technical personnel attached to the demonstration unit.

DIABETES DEMONSTRATION UNIT DUVAL COUNTY

MAY 1947 THROUGH OCTOBER 22, 1949

Total individuals tested May 1947 through October 22, 1949		6968
Recheck examinations		695
Glucose tolerance tests		460
Total individuals screened out (suspected cases of diabetes)		253
Confirmed cases of diabetes	93	
These cases had hyperglycemia and glycosuria in amounts indicating diabetes according to criteria of the American Diabetes Association. Referred to physicians and diagnosis of diabetes confirmed.		
Cases under observation for diabetes	44	
These cases showed laboratory evidence of diabetes as above, but either diagnosis not confirmed by physician or patient has not seen physician.		
Cases showing hyperglycemia (increased sugar in the blood)	105	
These cases showed values higher than normal but not sufficiently high to indicate diabetes. Some had sufficient hyperglycemia but no accompanying glycosuria. (Sugar in the urine).		
Cases of non-diabetic glycosuria	11	
Glucose present in the urine but blood glucose levels normal.		
Total patients on case register of known diabetics		1022
White	719	
Colored	288	
Not stated	15	
Duval Medical Center patients	327	
Patients of private physicians	635	
No medical supervision	10	
Not stated	50	
Nursing Visits, May 1947 to May 1948		430

Nursing Visits, May 1948 through October 22, 1949		790
Visits to known diabetics	582	
Visits to cases screened	208	
Total attendance diabetic instruction class, Duval Medical Center		748
White Diabetics	255	
Colored Diabetics	227	
White relatives of diabetics	149	
Colored relatives of diabetics	251	
White patients Duval Medical Center	118	
Colored patients Duval Medical Center	186	
White patients, private physicians	137	
Colored patients, private physicians	241	
Observers	66	

Distribution of Insulin: The first appropriation for purchase and distribution of insulin to indigent diabetics was passed by the 1935 Legislature. This body appropriated $7,500.00. No appropriation was made by the 1937 Legislature, but in 1939 it was restored and has been continuous to date. Following are the amounts expended for distribution of insulin:

July 1, 1935 to June 30, 1936	$ 7,171.83
July 1, 1936 to June 30, 1937	7,500.00
July 1, 1939 to June 30, 1940	5,545.25
July 1, 1940 to June 30, 1941	10,000.00
July 1, 1941 to June 30, 1942	2,499.15
July 1, 1942 to June 30, 1943	2,500.00
July 1, 1943 to June 30, 1944	5,682.40
July 1, 1944 to June 30, 1945	6,176.42
July 1, 1945 to June 30, 1946	11,292.77
July 1, 1946 to June 30, 1947	13,910.66
July 1, 1947 to June 30, 1948	23,441.24
July 1, 1948 to June 30, 1949	35,051.07

SUMMARY OF STATISTICS

DISTRIBUTION OF INSULIN

Average daily dose of insulin, all types	32 units
Average age of all persons receiving insulin	50 years
Number of cases	877

TYPE	No. of Vials	No. of Units	Percent
Regular U-40	1,715	686,000	11.0
Regular U-80	612	489,600	7.0
Protamine Zincs U-40	4,798	1,919,200	30.0
Protamine Zinc U-80	3,068	2,454,400	40.0
Globin U-40	290	11,600	02.0
Globin U-80	837	669,600	10.0
	11,320	6,310,400	100

AGE GROUPS	White Male	White Female	Colored Male	Colored Female	Not Stated	Total
0-14	7	10	—	1	—	18
15-44	47	46	13	18	—	124
45-64	53	109	21	66	2	251
65	89	159	17	—	—	265
Not Stated	15	59	6	26	113	219
Total	211	383	57	111	115	877

BUREAU OF NARCOTICS

M. H. Doss, Director

The Bureau of Narcotics is charged by law with the enforcement and control of narcotic, medical, pharmacy, osteopathy, naturopathy and chiropractic laws, the Narcotic Vehicle Seizure Act, and registration and licensing of retail and wholesale drug concerns handling narcotic drugs. The bureau also is charged by the State Board of Health with the guarding of the buildings, grounds and equipment of the State Board of Health.

The personnel of the bureau consists of six narcotic inspectors, three uniformed guards, one chief clerk, one senior clerk and one detective assigned to the bureau by the City of Jacksonville at no cost to the State. Field offices are located at Miami, Tampa and Tallahassee.

The bureau is having considerable trouble with the commitment act whereby narcotics addicts may volunteer or be committed to the hospital of the State prison for treatment and rehabilitation. Defendants apprehended for violation of narcotic laws, in an attempt to avoid criminal prosecution, often make application to the courts for treatment.

The table of activities carried in this report is confirmed by individual case reports permanently on file in this office.

SUMMARY OF ACTIVITIES

Total number open inspections	2,277
Total number investigations	1,222
Total number arrests	75
Total number violations corrected where no legal action was taken	95
Aggregate sentences imposed by the courts	105 years, 5 months, 1 day
Aggregate fines imposed by the courts	$1,902.75
Total number defendants receiving probation, deferred or suspended sentences	22
Total number cases discharged or nolle prosequi by the courts	3
Total number narcotic addicts confined to State or Federal institutions for treatment	6
Total number cases resulting in an acquittal by jury	5
Total number miles driven	121,162
Total number bonds estreated	$1,100.00

UNIFORM NARCOTIC ACT

(Chapter 398, Florida Statutes 1941)

Number arrests	59
Aggregate sentences imposed by criminal courts	101 years, 5 months, 1 day
Aggregate fines imposed by criminal courts	$ 750.00
Number persons receiving probation, deferred, withheld or suspended sentences	16
Number cases discharged or nolle prosequi by the courts	3
Number prosecutions resulting in an acquittal	3

STATE DRUG AND SIGN ACT (Pharmacy)

(Chapter 465, Florida Statutes 1941)

Number arrests	11
Aggregate fines imposed by criminal courts	$1,147.75
Aggregate sentences imposed by the criminal courts	1 year
Number defendants receiving withheld sentences	4
Number drug stores or pharmacies registered for fiscal year 1949-50	879
Number violations corrected where no legal action was taken	95
Number pharmacists reported to Board of Pharmacy for revocation or suspension of license	6

MEDICAL PRACTICE ACT

(Chapter 458, Florida Statutes 1941)

Number arrests	7
Aggregate sentences imposed by the criminal courts	3 years
Aggregate fines imposed by criminal courts	$ 5.00
Number defendants receiving probation, withheld, deferred or suspended sentences	2
Number injunctions obtained in circuit court	1
Number cases resulting in an acquittal	2
Number Medical Doctors (M.D.) registered	3,512
Number Osteopathic Physicians (D.O.) registered	426
Number Naturopathic Physicians (N.D.) registered	236
Number Chiropractic Physicians (D.C.) registered	387
Number Masseurs registered	929
Number Chiropodists registered	133

Miami has in the past several years become the most active field office in Florida and it is respectfully recommended that adequate office facilities be made available and one of the two agents attached to the Jacksonville Central Office be transferred to the Miami District Office.

APPENDIX

Typhus Epidemiological Studies in Florida

E. R. Rickard, M.D., Rockefeller Foundation

At the beginning of the year 1949 the rickettsiae of murine typhus were successfully cultivated in fertile eggs. This made possible the economical preparation of large quantities of soluble type and purified rickettsial suspension antigens which were used for serological studies of human beings and rodents.

Infectious yolk sac suspensions were also prepared for experimental inoculation of animals. These suspensions were uniformly infectious for white mice with doses of 0.25 cc in dilutions of 10-7 by intraperitoneal and 10-6 by subcutaneous routes of inoculation. They were partially infectious for white mice by either route in dilution of 10-9. The 50% mortality dose by intraperitoneal inoculation was 0.25 cc of the 10-3 dilution. By subcutaneous inoculation the suspensions were not lethal to mice in dilution of 10-1. In roof rats similar results were obtained when 0.5 cc doses were employed except that the 50% mortality dose by intraperitoneal inoculation was 10-2. Roof rats inoculated with large but not lethal doses (10-3) of the suspensions by the intraperitoneal route appeared to be ill for one or two days on about the seventh or eighth day after inoculation. Rats receiving smaller but uniformly infectious doses never were noticed to appear ill. In several instances it was observed that rats ill with typhus would be attacked and killed by more vigorous companions. A comparison of lethal doses in young and full grown roof rats revealed that when doses in proportion to weight were employed mortality in young rats was about equal to but slightly less than in the older rats. In consideration of the very wide range between lethal and infectious doses of inocula it would appear that typhus infection as occuring in nature would have no great influence on rat populations.

Roof, cotton, rice and wood rats and guinea pigs, grey squirrels, opossums and white mice were given heavy intraperitoneal inoculations of infectious yolk sac material (0.25 or 0.5 cc of 10-3 dilution) and autopsied at daily intervals from the first to the eleventh days after inoculation. In tunica or peritoneal smears relatively small numbers of extracellular rickettsiae were often seen on the first or second days after inoculation. These almost always disappeared on the third to sixth days. In all species examined abundant intracellular rickettsiae were seen in tunica or peritoneal smears at from the seventh to eleventh days after inoculation. In most instances the animals' sera already possessed complement fixing (CF) antibody in high titer at the time multiplying rickettsiae were observed.

In studies of the mechanism of typhus infection in roof rats viable rickettsiae were demonstrated to be present in the circulating blood at intervals from the sixth to the forty-second day following heavy intraperitoneal inoculation. Inoculated rats were bled 2 cc from the heart and the blood inoculated directly before clotting into the peritoneums of cotton rats which were tested by CF for immunity one month after inoculation. Viable rickettsiae were thus demonstrated in the blood of rats possessing at the time both CF and rickettsial agglutination (RA) antibodies in high titers. This finding raises the question as to how circulating rickettsiae may be protected from abundant humeral immune substances.

The possibility of the transmission of typhus from rat to rat in the absence of ectoparasites was investigated. When infected rats were placed in ectoparasite free cages with normal rats infection as a result of fighting or cannibalism has been observed to occur. Conditions of the experiments were not representative of those ordinarily found in nature. The effect of fighting and cannibalism is being further studied in a rat colony where conditions are not natural.

In studies of the possible transmission of typhus by the urine of infected rats rickettsiae could not be demonstrated by microscopic examination of the centifuged sediment of recently and naturally voided urine of rats in the acute phase of severe typhus. Neither could the presence of viable rickettsiae in such specimens be demonstrated by intraperitoneal inoculation of cotton rats followed by CF tests for immunity. When known amounts of viable rickettsiae obtained from infected yolk sacs

or guinea pig tunica were added to recently voided normal rat urine the organisms were found to survive at room temperature for from one to fifteen minutes while in buffered dilute casein solution under the same conditions they survived for from one to three hours. The experiments indicated that there was very little, if any, probability of the transmission of typhus by the urine of infected rats.

To aid in interpreting the significance of various CF titers observed in the sera of animals taken in nature in relation to possible past infection with typhus several hundred small animals were inoculated with varying doses of infectious yolk sac suspension or with blood from typhus infected animals. Following inoculation CF tests were performed on the sera of these animals at intervals of from a few days to more than nine months. CF antibody was rarely observed before the sixth day but by between seven and fourteen days almost all sera examined possessed this antibody in very high titers which persisted to the end of the second month. Between the second and the twelfth months there was considerable loss in titer so that end points in the lower range of from 1:8 to 1:64 were rather frequently observed.

In the case of roof rats which received smaller inocula CF antibodies appeared in the sera somewhat later, on the third or fourth week following inoculation. Titers observed from then until the end of the third month were high but not quite as high as in the group of rats which had received heavier inoculations. Observations from the third to twelfth month in rats receiving small inocula are meager but do not suggest any greater fall in titers than in the rats which received the heavier inocula.

Similar CF studies were done on the sera of cotton rats which received large intraperitoneal doses of yolk sac (0.5 cc of 10-3 dilution) and more moderate doses of rickettsiae in the form of infectious blood. No difference was noted between CF antibody response to large and moderate doses except a slight delay in the initial appearance of antibody in the sera of animals which received the smaller inocula. Details of CF titers in inoculated cotton rat sera indicate that this species responded to inoculation with CF titers equally as high as those of inoculated roof rats and that unlike the roof rats the cotton rats' titers almost all remained at a high level for a period of over nine months.

The sera of 39 wood rats inoculated intraperitoneally with 0.5 cc of 10-3 dilution of infectious yolk sac were examined by CF. Results indicate that this species uniformly produced CF antibody but with titers considerably lower than those obtained by roof and cotton rats.

Sera of a small number of heavily inoculated Norway rats, rice rats, grey squirrels and opossums were likewise examined by CF. Initial titers of the sera of all these animals were similar to those obtained with roof and cotton rat sera with the exception that titers observed with opossum sera were similar to those of the wood rats, somewhat lower.

In performing the above serological studies as a control upon the CF tests three standard positive sera and one negative serum were included in each test. Titers of the positive sera have remained consistently the same from test to test with but few exceptions and have been as follows:

Serum No.	*Source*	*Titer*
1	Positive rat pool	1:2048
2	Positive g. pig pool	1:256
3	Post-vacc. human	1:32

A deviation of one twofold dilution up or down in any one of the sera, provided the other two had no deviation, was considered admissible. No greater deviation than the above was noted in the standard serum titers during the period when the tests were performed. The negative control serum remained negative on all tests. As a further check on standardization of technique, standard serum specimens were exchanged with three other laboratories engaged in investigation of rickettsial diseases. Results obtained by two of these laboratories indicated our titers to be one or two twofold dilutions high. The results of the third laboratory coincided closely with ours.

The above studies of the CF tests were performed with the soluble type murine typhus antigen. For comparison 130 of the same serum specimens from typhus infected rats were tested by CF against both soluble type and purified rickettsial suspension antigens. Considerable variation in titers with the two different antigens on the same sera was noted. There was a rather high degree of correlation of titers, however, so that the differences observed with the two antigens should have no great practical significance.

The rickettsial agglutination (RA) test has for a number of years been recognized as a useful serological procedure in the study of rickettsial diseases. The antigen, however, has been considered difficult to prepare and consequently has not been as readily available as has been the soluble type antigen which is considered satisfactory for CF tests. Relatively little has appeared in the literature on RA in human sera and almost nothing on RA in the sera of infected rodents or other animals. By the inoculation of fertile eggs with small doses of seed virus and allowing 9 to 10 days for rickettsiae to develop it has been possible to secure infected yolk sac material which is very rich in rickettsiae. From twenty such infected yolk sacs fifty cc of purified rickettsial suspension may be prepared which may be used satisfactorily in RA tests in final dilutions of from 1:20 to 1:40.

In order to determine the possible utility of the RA test in the study of the sera of infected animals 140 roof rats, 60 cotton rats and 27 wood rats which had been inoculated with murine typhus and had developed strongly positive CF antibodies were examined for RA antibodies at intervals of from a few days to more than nine months after inoculation. In the case of roof rats RA antibodies began to appear at from 21 to 30 days after inoculation. In these same rats CF antibodies had appeared at between 7 and 14 days. In the sera of cotton rats RA antibodies appeared somewhat earlier. In all species tested RA antibodies were inconstant and tended to disappear with passage of time. It would appear, therefore, that the RA test because of its lack of sensitivity cannot be used as a substitute for the CF test to determine past typhus infection in rodents with any great degree of accuracy. This conclusion is strengthened by the observation that 20 roof and Norway rats found in nature with strongly positive CF titers (1:128 or more) 19 were persistently negative by RA or reverted from low titered positives to negatives when the rats were re-examined. In all instances these rats remained strongly positive by CF on repeated examinations. The sera of 73 normal cotton and 62 normal roof rats, all negative by CF, were likewise all negative by RA at dilution of 1:20. Apparently, therefore, the RA test when positive at that dilution may be considered specific in these species.

The RA test has been used in conjunction with the Weil-Felix (WF) and CF tests in the diagnosis of a few cases of human typhus. In the four cases observed RA antibodies have appeared simultaneously with CF and WF antibodies. In six human post-vaccination sera and the sera of several vaccinated guinea pigs RA antibodies have been less constant and persistent than CF antibodies.

In studies of typhus infection in arthropods, fleas which had fed on infected rats or white mice were demonstrated to contain viable rickettsiae by inoculation of cotton rats which subsequently gave positive tests for immunity. Nevertheless, miscroscopic search for rickettsiae in the crushed bodies of these fleas, their crushed alimentary tracts or in their recently passed feces gave questionable results. Only a few organisms which might have been rickettsiae but could well have been adventitious bacteria were observed. Nothing comparable to the great abundance of easily recognizable rickettsiae routinely observed in tunica scrapings of infected animals or in yolk sac smears was seen. The degree of abundance and viability of rickettsiae in the bodies and feces of infected fleas is, therefore, under further investigation.

The transmission of typhus from infected flea parents to offspring has been attempted in one experiment with negative result. Flea larvae *(X. cheopis)* were reared in a jar with their infected parents. Infection of parent fleas was verified by subsequent injection of these fleas into cotton rats which gave positive immune response. Emulsions of the emerging offspring injected into cotton rats at varying intervals after emergence in no instance caused immune response in these animals. Neither did injection of emulsions of the bedding in which the infected fleas had reared their progeny.

Examination by CF of commensal and cotton rats and other small mammals taken in nature was continued throughout the year. In the sera of a relatively large number of commensal rats found with positive CF results titers generally were above 1:64. A considerable number of cotton rats were also found in nature with positive CF tests. In no instance, however, was a titer of more than 1:64 observed in a cotton rat taken in nature. In consideration of some studies in which cotton rats inoculated with typhus have been shown with but very few exceptions to

produce and maintain for long periods titers much higher than 1:64 the low grade titers found in cotton rats in nature are not considered to denote previous infection. This opinion is substantiated by the fact that in a few instances similar positive CF titers have been observed in cotton rats bred in captivity without opportunity for typhus infection. Moreover, several attempts to demonstrate rickettsiae in the brains of cotton rats with low CF titers have been negative while results have been positive when the same technique was used with brains of commensal rats found in nature with strongly positive CF titers. A small number of mammals other than commensal and cotton rats have been examined. A few were found with positive CF tests but all in low titer so that the results do not necessarily suggest that these species may be natural reservoirs.

Anticomplementary rodent sera have throughout the course of these studies been a serious handicap in the use of the CF test in the study of the immunology of typhus in rodents. It was noted that the sera of cotton rats particularly tend to be anticomplementary. By examining anticomplementary controls in serial dilutions it was found that the majority of sera so examined were anticomplementary in lower dilutions only. Therefore, the possibility of high titered positive sera has been excluded from the greater portion of the anticomplementary group.

Study of an open (non-rat-proof) roof rat colony was completed after one year of observation. Results have been presented for publication. The rat population in a closed (rat-proof) colony started about one year ago has increased to a point where the colony may be used for experimental purposes. Typhus infection has been introduced to this ectoparasite free colony in order to study the possibility of contact transmission.

The incidence of human typhus continued to drop during the year. Only seven known and confirmed cases occured in Hillsborough County during 1949. Records for confirmed cases in the same area for the past six years are as follows:

Year	*Number of cases*
1944	269
1945	202
1946	80
1947	38
1948	12
1949	7

Epidemiological investigation of the 1949 cases revealed that five were probably infected in business establishments such as feed and grocery stores, one at home and one was of unknown origin. In infected cases traced to business houses, prompt and vigorous preventive measures taken by employers prevented proper study of the previous environmental conditions which might have caused infection.

A survey of the prevalent use of DDT was conducted in the rural areas of Hillsborough County. In two hundred farms of various and representative sizes and economic status it was found that 66 per cent used DDT and that the extent of the use of this insecticide had greatly increased in recent years. This factor may be one contributing to the reduction in the numbers of human typhus cases.

During the year, 1932 premarital serum specimens were tested for typhus CF antibodies with soluble type antigen. There is considerable doubt as to the significance of positive results of sera obtained from the general population when tested with this antigen, because a rather high percentage of such positive sera have also been found to react when tested with normal yolk sac protein processed in the same manner as the antigen. For this reason purified rickettsial suspensions are being compared to soluble type antigen for making immunological surveys of the general population.

The following papers were presented for publication:

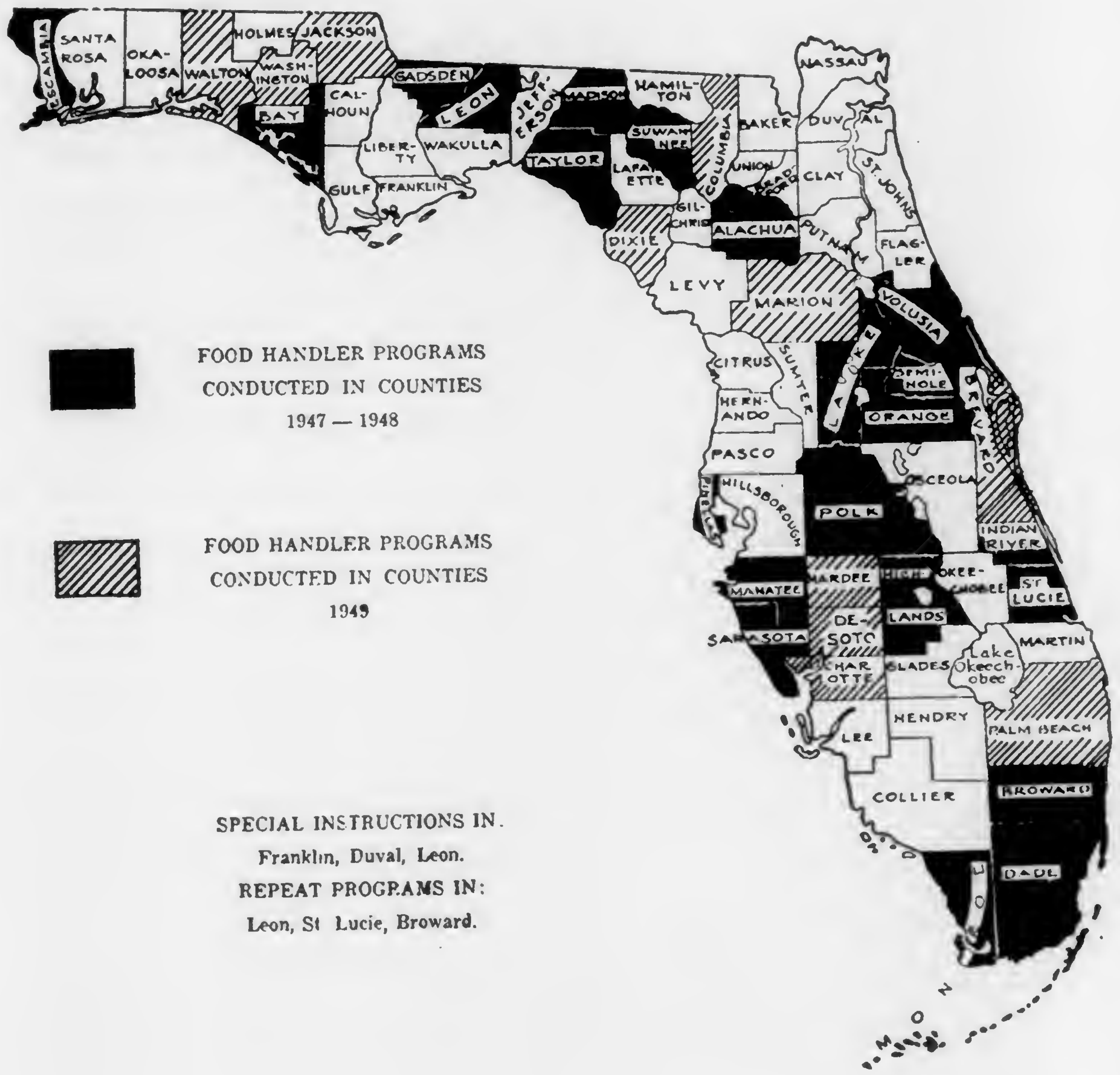
Observations on the Behavior and Breeding of Captive Rice Rats, *Oryzomys palustris natator* (Chapman) and Florida Wood Rats, *Neotoma Floridana floridana* (Ord). C. B. Worth.

Field and Laboratory Observations on Roof Rats, *Rattus rattus* (Linnaeus) in Florida. C. B. Worth.

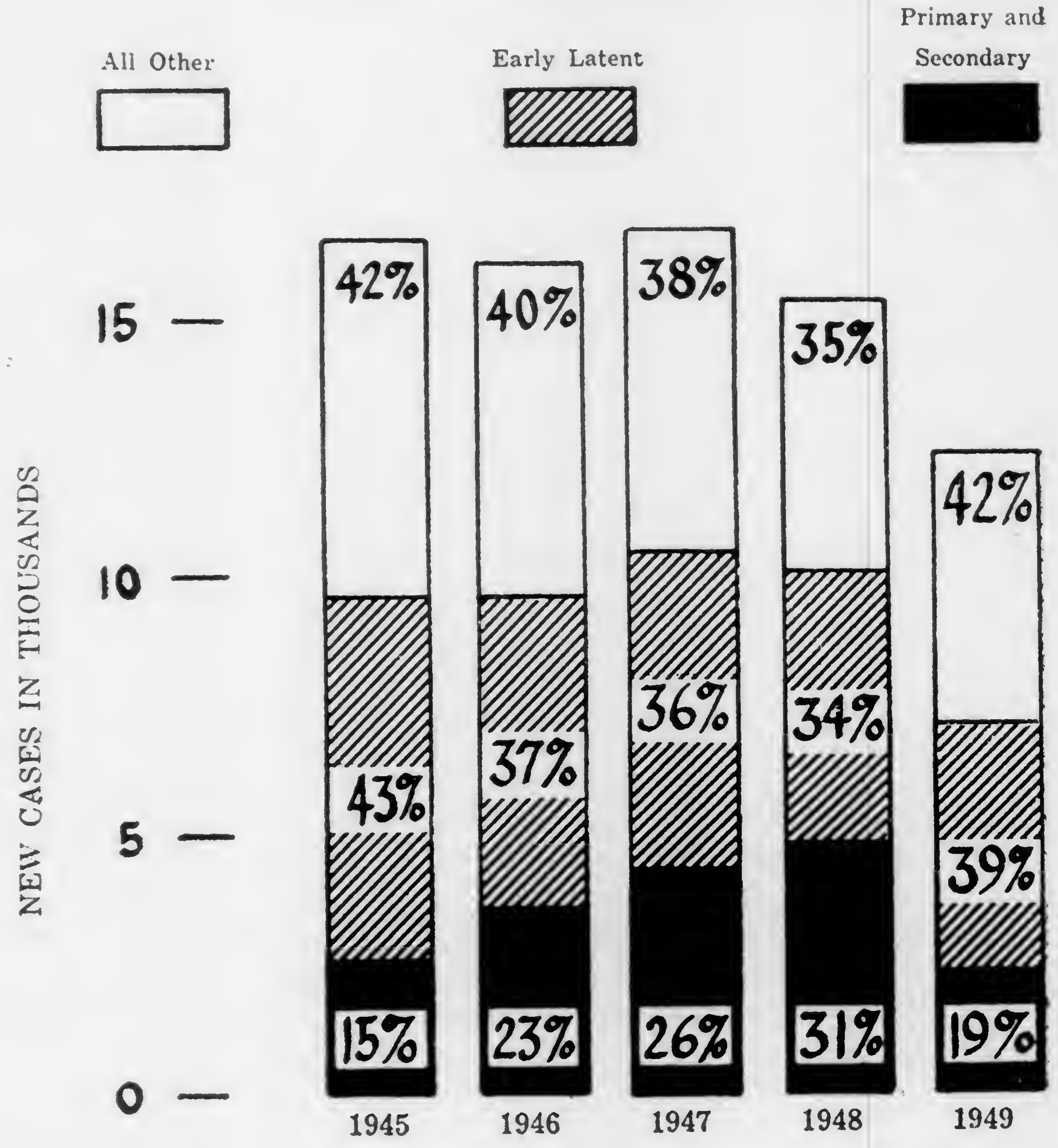
Indirect Evidence Supporting Observations on the Range of Wild Rodents. C. B. Worth.

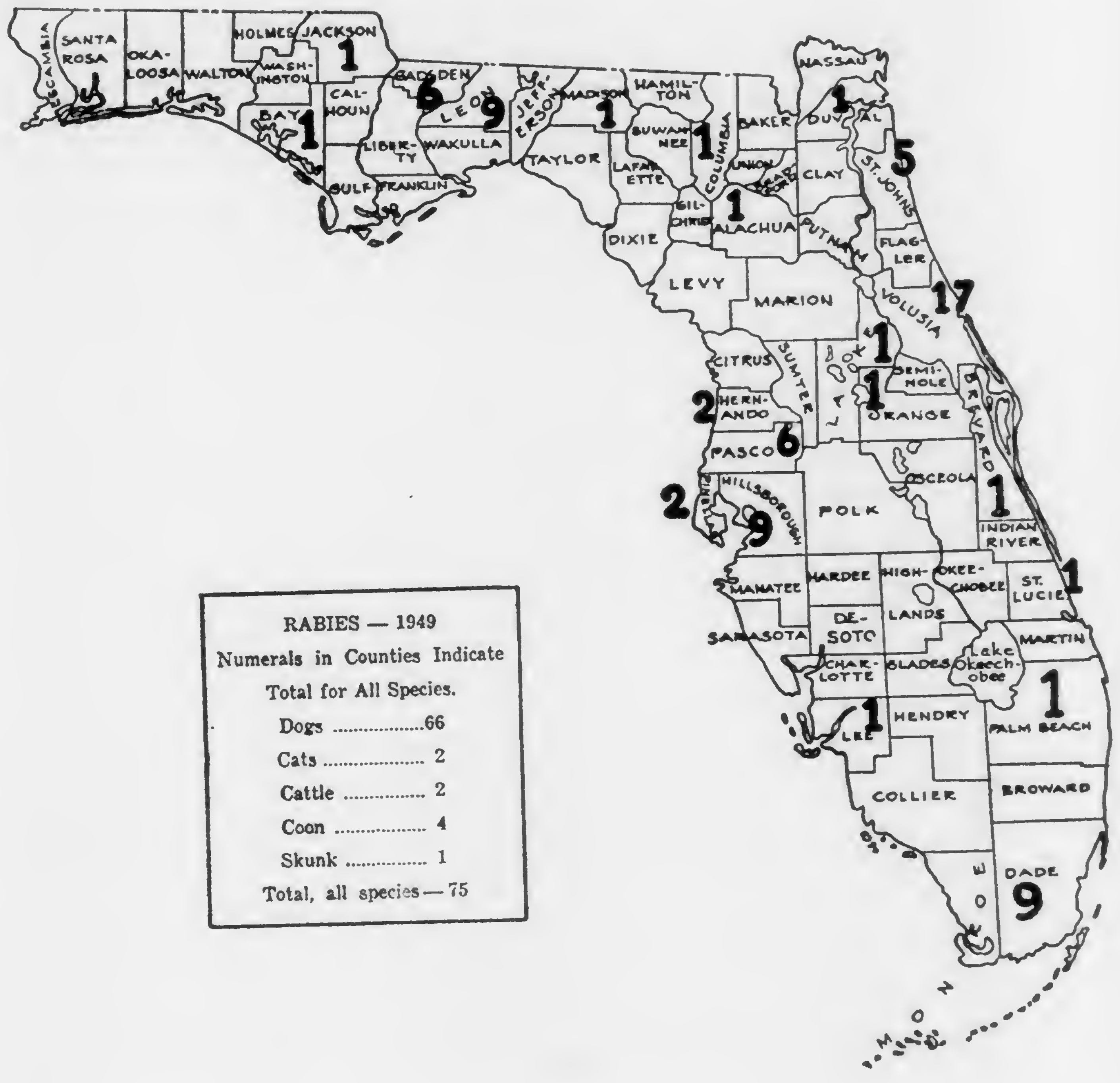
Observations on Ectoparasites of Some Small Mammals in the Everglades National Park and Hillsborough County, Florida. C. B. Worth.

FOOD HANDLERS' TRAINING PROGRAM



TOTAL SYPHILIS REPORTED BY YEARS



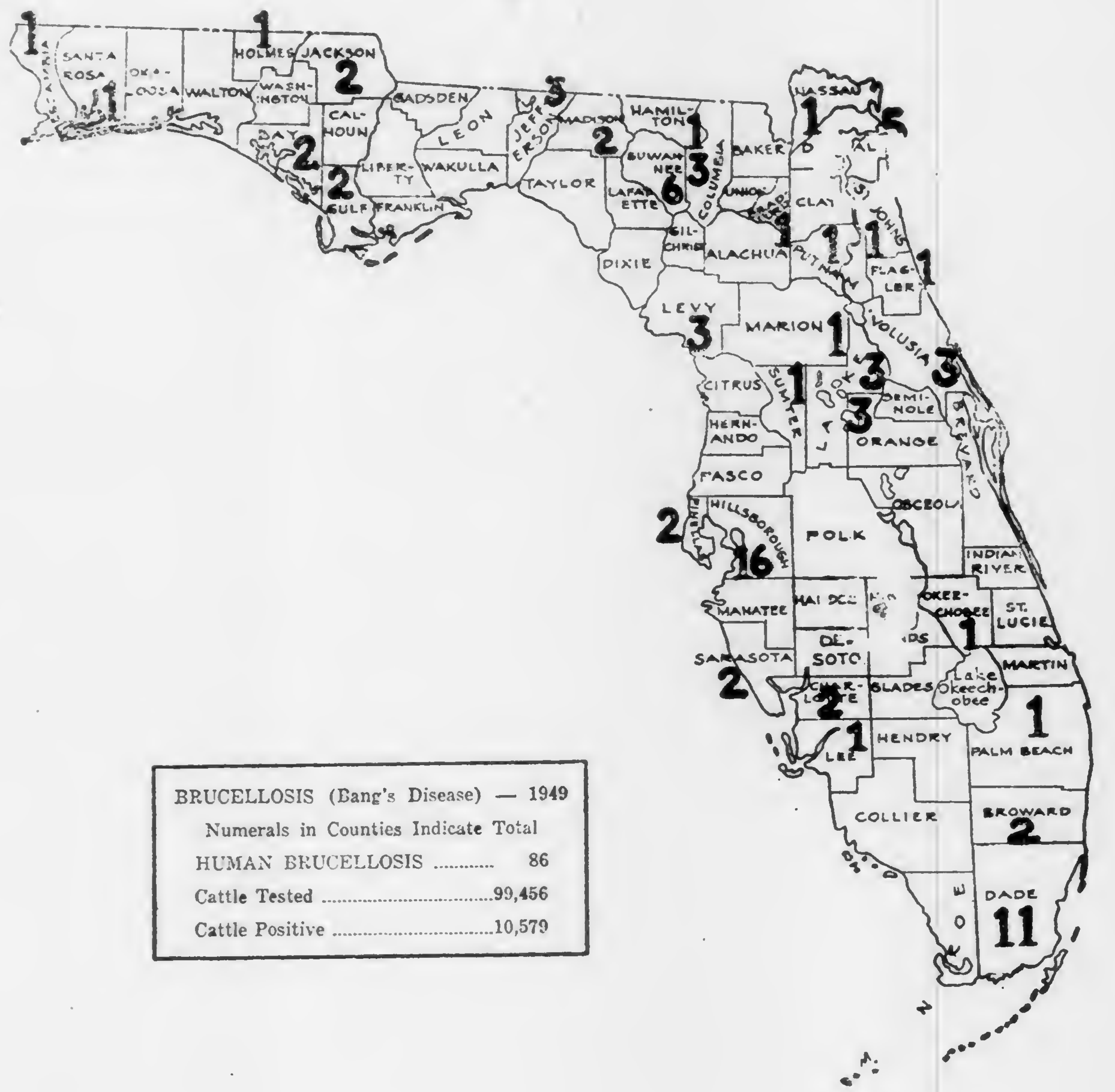


RABIES — 1949

Numerals in Counties Indicate Total for All Species.

Dogs	66
Cats	2
Cattle	2
Coon	4
Skunk	1

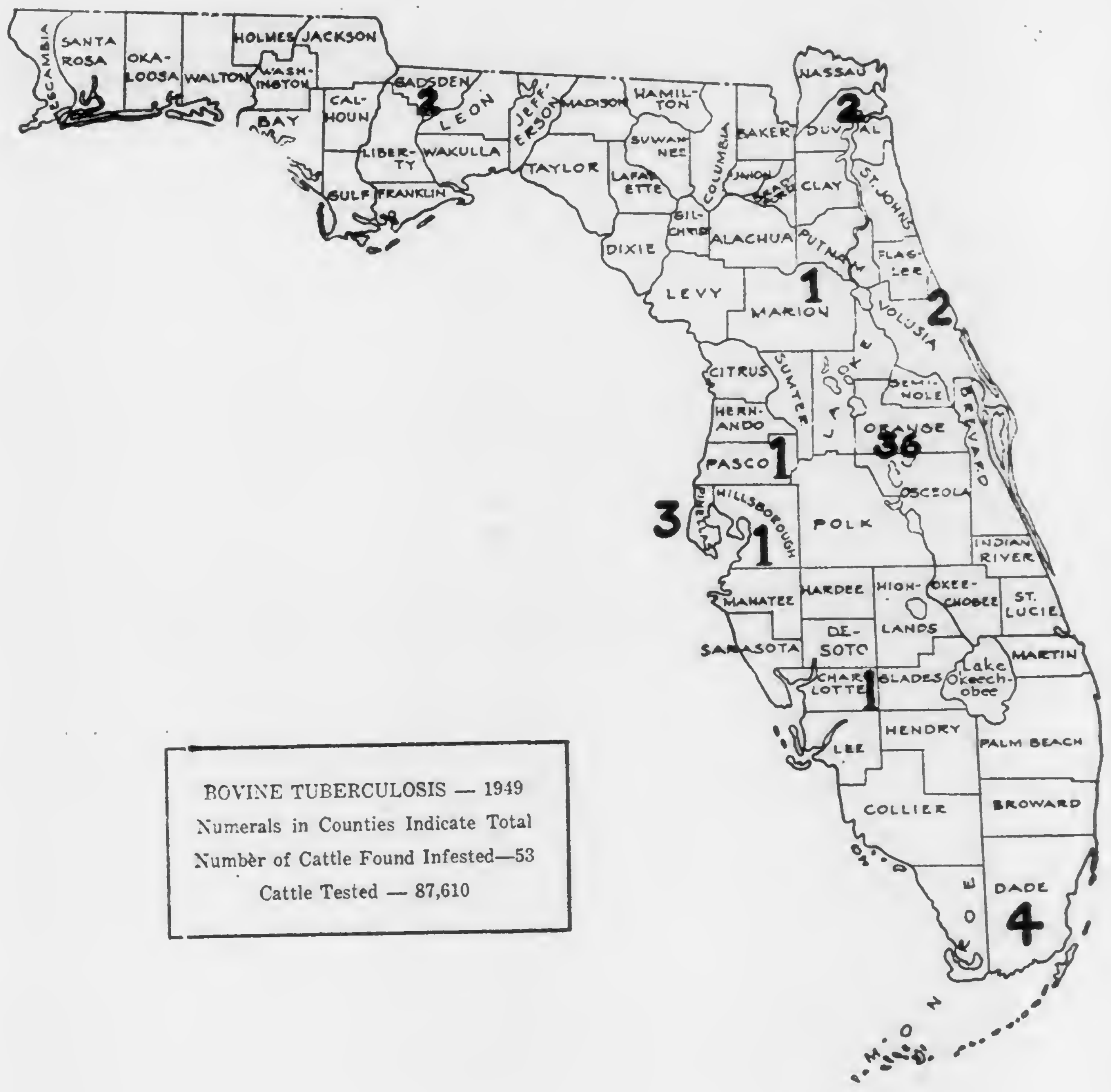
Total, all species — 75



BRUCELLOSIS (Bang's Disease) — 1949

Numerals in Counties Indicate Total

HUMAN BRUCELLOSIS	86
Cattle Tested	99,456
Cattle Positive	10,579



BOVINE TUBERCULOSIS — 1949

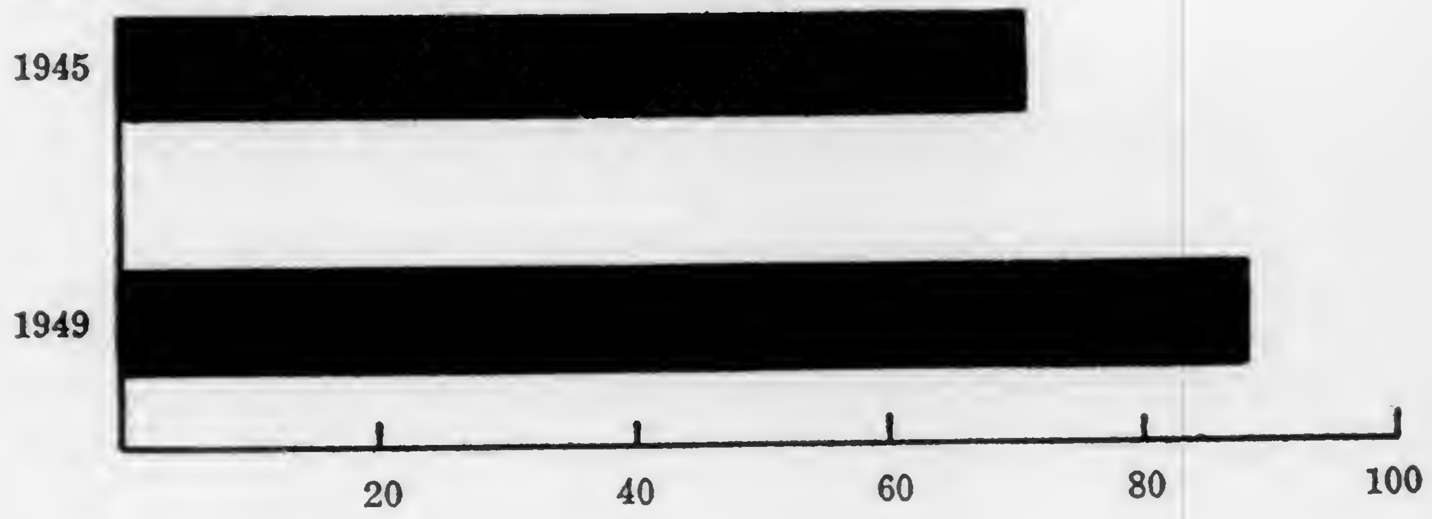
Numerals in Counties Indicate Total

Number of Cattle Found Infested—53

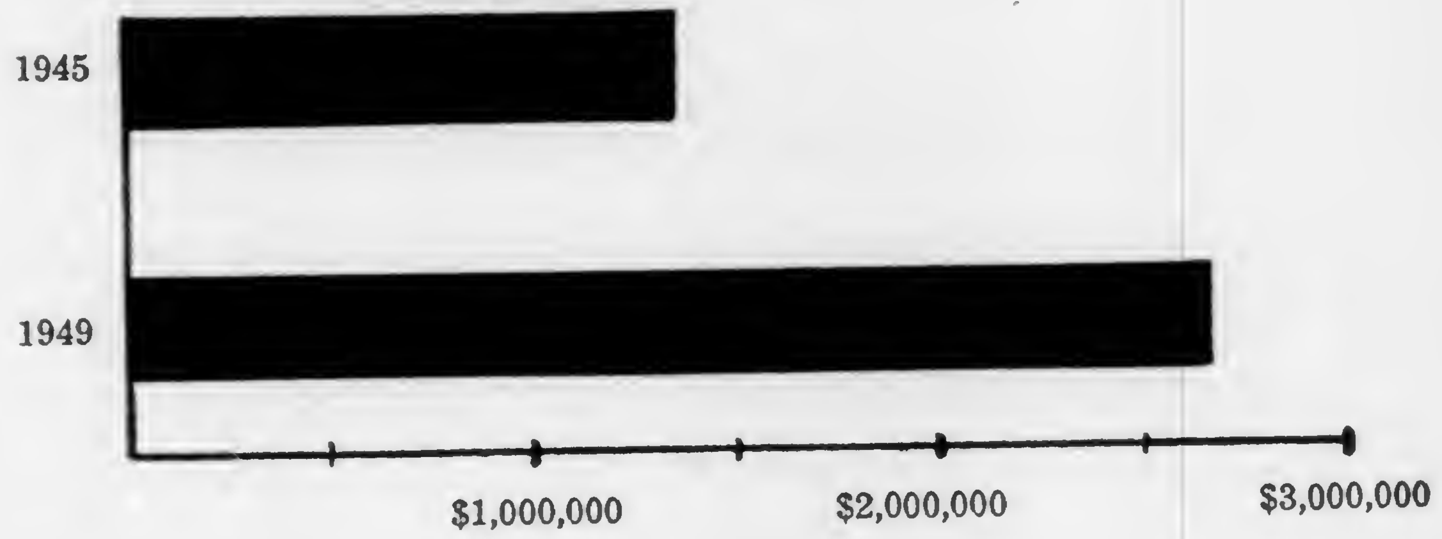
Cattle Tested — 87,610

LOCAL HEALTH SERVICE

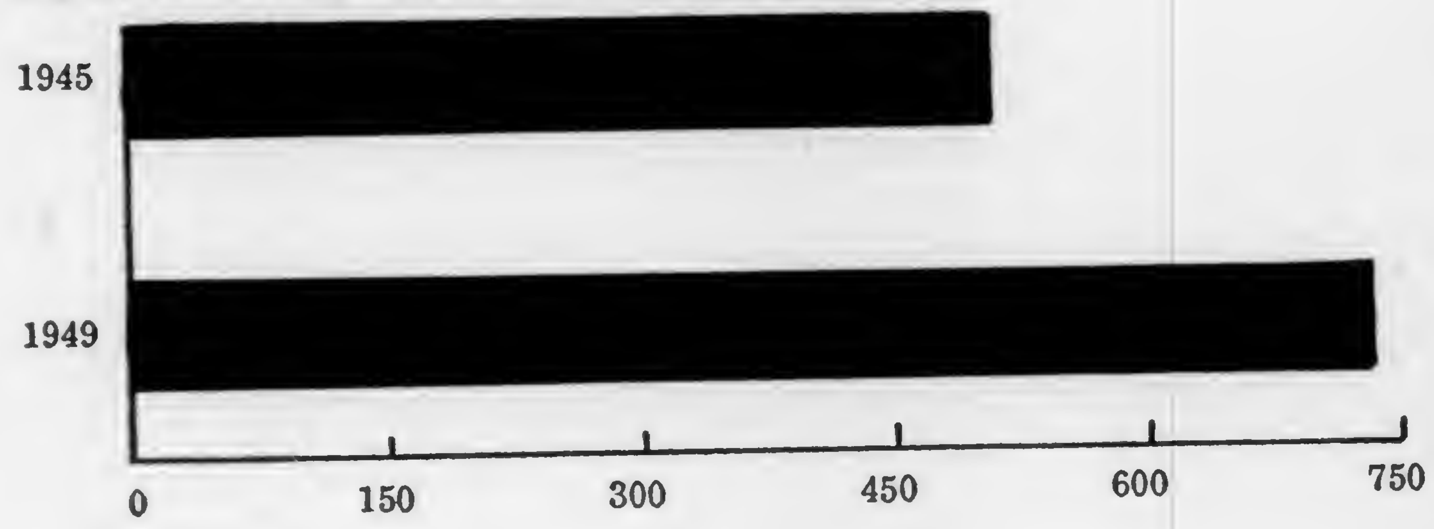
PERCENT OF POPULATION OF FLORIDA SERVED BY COUNTY HEALTH UNITS



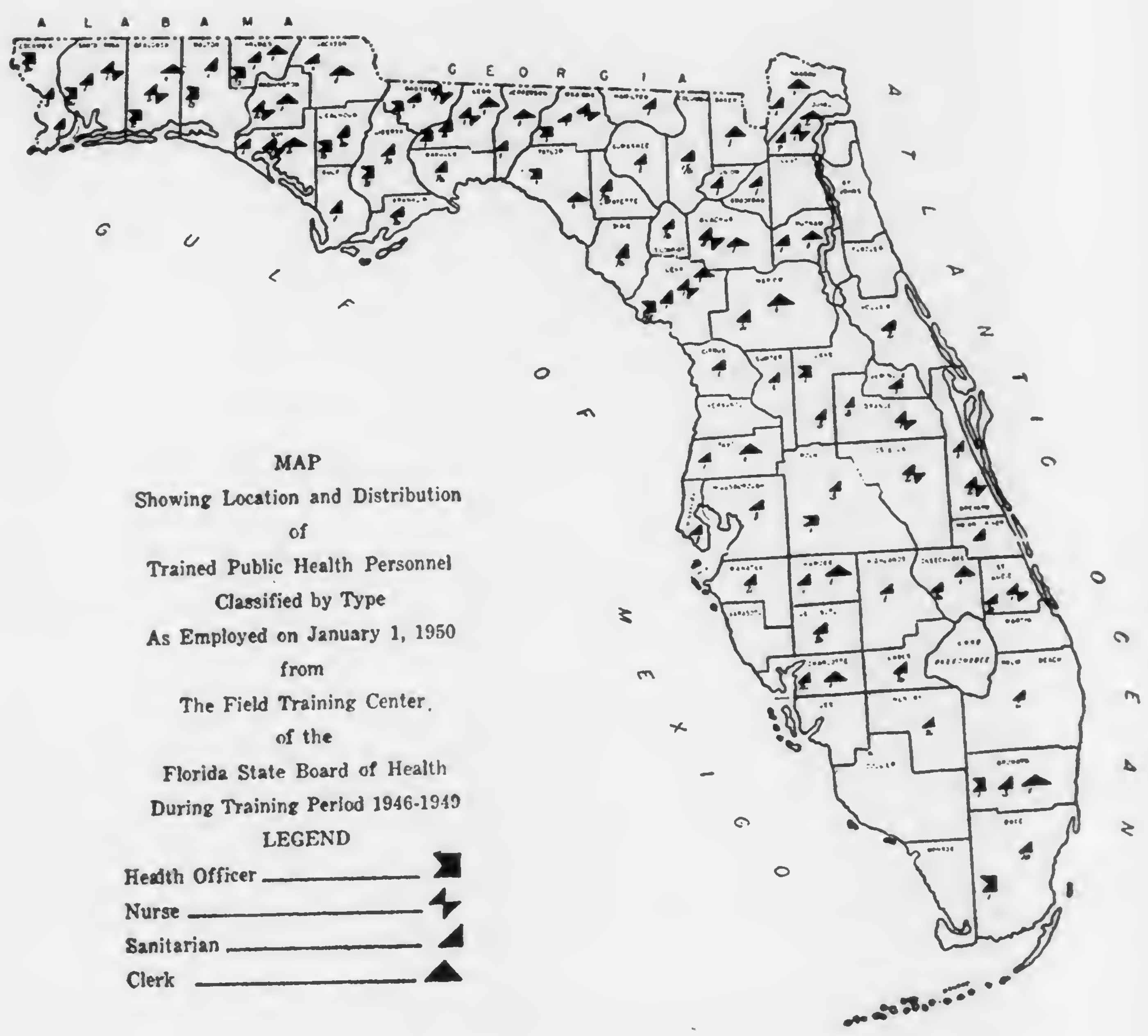
TOTAL COUNTY HEALTH UNIT BUDGETS FOR FLORIDA



NUMBER OF FULL TIME PERSONNEL IN COUNTY HEALTH UNITS FOR FLORIDA



FIELD TRAINING CENTER



MAP
Showing Location and Distribution
of
Trained Public Health Personnel
Classified by Type
As Employed on January 1, 1950
from
The Field Training Center
of the
Florida State Board of Health
During Training Period 1946-1949